UNIVERSITY FOR DEVELOPMENT STUDIES,TAMALE

ASSESSING THE GAP BETWEEN NATIONAL HEALTH INSURANCE CLIENTS' EXPECTATIONS AND THEIR PERCEPTIONS OF THE QUALITY OF HEALTHCARE RECEIVED AT THE TAMALE CENTRAL HOSPITAL IN THE TAMALE METROPOLIS

ALHASSAN NAMBILI ABDULAI

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FEBRUARY, 2018

DECLARATION

Student

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for master's degree in this university or elsewhere.

……. Date:

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Supervisor

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.

……. Date:

DR. GILBERT ABOTISEM ABIIRO

(SUPERVISOR)

ABSTRACT

Healthcare quality is a level of value provided by any healthcare resource as determine by some measurement. When a person gets good quality healthcare, it means that his or her care is based on the latest evidence from medical research. The objective was to determine quality gaps between NHIS subscribers' expectations and their perceptions of quality of healthcare received at the Tamale Central Hospital. The NHIA facilities includes, health centres, clinics, hospitals, and cheap compounds to provide quality healthcare. The social determinants of health insurance includes income, age, education, attitude towards risk and geographical differences. The study design was cross sectional survey, and about 280 NHIS subscribers' through systematic sampling were dministred (SERVQUAL) questionnaire. Descriptive analysis revealed that, majority (98%) of the NHIS subscribers'expected the hospital to use modern equipment to deliver healthcare. (96%) of the subscribers' perceived the hospital to be delivering safe healthcare. A pair mean analysis of expected and perceived service revealed two statistically significant quality gaps of ($p<0.05$), quick and prompt service p valu 0.00 empathy (understanding patient needs) p value 0.007. The negative quality gaps recorded on reliability (getting treatment right) p value 0.000, fulfilling service promise p value 0.019, providing service feedback p value 0.026, safety of treatment p value 0.000, personal healthcare needs p value 0.010) and empathy (patient at heart) p value 0.012. In conclusion the study recommends timeliness of service, providing service feedback to patients, addressing personal healthcare needs to improve the quality of medical service as key to country development. Future studies can compare quality gaps in both private and public hospitals using larger sample size.

DEDICATION

I dedicate this work to my family members for their endless love and prayers

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Thanks be to God almighty for granting me the knowledge and wisdom through this study. My special thanks go to Dr. Gilbert Abotisem Abiiro for not only accepting to supervise the study but for his dedication and commitments to the supervision of my work. I am highly impressed for your due diligence, constructive criticisms and expert advice in going through my work.

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LIST OF ABBREVIATION

AHASS	American Hospital Association
CBS	Community based Surveillance
DDDN	Deputy Directors of Nursing Service
DHMT	District Heath Management Team
DMIS	District Mutual Insurance Scheme
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GLSS	Ghana Living Standard Survey
GPRS	Ghana Poverty Reduction Strategy
GSS	Ghana Statistical Service
HEPNET	Health Economics and Policy Network in Africa
IOM	Institute of Medicine
IPD	In patient Department
LDMTDP Plans	Local Development Medium Term Development
$LMIC_S$	Low - and Middle-income countries
MHMT	Metropolitan Health Management Team
MOH	Ministry of Health
MS	Mean Score
NGO	Non-Governmental Organization
NHIA	National Health Insurance Authority
NHIC	National Health Insurance Commission
NHIS	National Health Insurance Scheme
OPD	Out Patients Department

PCHIS	Private Commercial Insurance Scheme
PMS	Private Mutual Scheme
QA	Quality Assurance
QAP	Quality Assurance Programme
QEP	Quality Enhancement Plan
SDHMTs	Sub District Health Management Teams
SERPF	Service Performance
SERQUAL	Service Quality
SPSS	Statistical Performance for Social Scientist
SSNIT	Social Security and National Insurance Trust
STD	Standard deviation
TBAs	Traditional Birth Attendants
TCH	Tamale Central Hospital
TQM	Total Quality Management
UDS	University for Development Studies
UHC	Universal Health Coverage
USAID	United State Agency For international Development
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

It has been said that health is one of the fundamental human rights, and that it is a key to the future, economic vitality to morale efficiency, and generally to success in life. Healthcare should not make one's life miserable, nor become a nuisnnce to others. Man cannot live for ever, nor can he enjoy perefect health at all times, but of both life and health everyone would like to have his full share.

Healthcare quality is a level of value provided by any healthcare resource as determined by some measurement. The goal of healthcare is to provide medical resources of high quality to all who need them to ensure good quality of life, to cure illness, when possible to extend life expectancy. Quality of healthcare service usually has two dimensions, the diagnosis of the health problem been investigated and wheather the patients perceived that the processes they go through conform to quality healthcare service delivery in Ghana. The study is very relevant in the long term saving costs which are very essential in promoting and sustaining high level of care among the populations which are every country's asset.

In today's globalised economy, delivering quality services is crucial to the success of any service organization. Consumers' perception and knowledge of the service performance and delivery process of an organization offer an opportunity to critically assess the quality of services received at that organization (Kandampully, 2000). There are several indicators for measuring perceptual quality of service in service organizations (Parasunama *et al*, 1988). Within the health

sector, perceptual quality is the views of consumers about the ability of healthcare providers to perform actions that relate to the delivery of healthcare perfectly at the right time and at the right place (Bozkurt, 1995). Therefore, high perceived quality of healthcare by the service user is based on, the degree at which services meet patients' expectations which ultimately lead to patients' service satisfaction (Ovretveit, 1992).

Perceptual quality of service is classified under two broad definitions: objective and subjective quality (Peter, 2008). The objective quality of service is the accuracy of medical diagnosis and procedures or conformance to professional specifications (Gabriel *et al*, 2008). Subjective quality, on the other hand, is the perception of compliance to delivery standards and expected benefits by the customer (Piper, 2014). Patients' perceived quality of service is assessed by comparing patients' services expectations with the actual services they eventually receive from the service delivery facility (Lau *et al*, 2005). The consumer approach proponents consider evaluating quality of healthcare received from users perceptive (Blumnfeld, 1993).

User service assessment leads to service efficiency and effectiveness (Dickens, 1994; Skelcher, 1992). It is largely believed that service users' perspectives of the quality of healthcare has dual merits as an indicator for an improved service delivery and performance monitoring (World Health Organization (WHO, 2012; Epstein, 1990). Achieving Universal Health Coverage (UHC) for all as envisaged and stated in the Sustainable Development Goals (SDGs) hinges on quality of healthcare service delivery (WHO, 2014). This is a litmus test for international and national governments to commit additional resources towards ensuring that the quality of healthcare services is enhanced.

As part of state commitment to quality healthcare service delivery in Ghana, the Ministry of Health (MOH) (2006) programme of work (POW) identified quality healthcare service improvement to patients as key to population health. Several strategies and initiatives have been outlined to achieve better healthcare in the health sector. The Ghana Statistical Service (GSS) (2003) attributed the high infant mortality rate of 64 per 1000 to the poor quality of healthcare received by patients. This suggests that quality healthcare service has been the weakest link in contributing to good health statistics country wide. The only development option that needs to be pursued to avert this negative trend of the health sector is to reinvigorate and enhance quality healthcare service delivery.

The GSS, (2000) reported that 40% of the inhabitants in the Northern, Upper East and Upper West regions are poor. Also, there is evidence of inequitable spread of healthcare facilities, with low nurse to patient ratios, low salaries, and poor working conditions, which can undermine the provision of quality health care service to patients.

Despite the efforts to improve the quality of healthcare service and to enhance service satisfaction, there are still healthcare delivery shortfalls as perceived by the patients, which undermine customer satisfaction of the healthcare service. It was reported that service satisfaction is equivalent and tantamount to service quality (King, 1995). Research had shown that patients mostly complain when they experienced poor quality service (Oliver, 1987). Typically for a region where poverty levels are high, patients need to have access to quality of healthcare service at the existing facilities, because the patients have limited option for alternative healthcare service (Nyer, 1999). The providers of healthcare develop and manage healthcare service by referring to customer dissatisfactions of service (Hernon *et al*, 1999; Sureschandar *et al*, 2002; Kumar *et al*, 2008).

1.2 Problem Statement

The problem of quality healthcare service has been a major setback in the delivery of basic healthcare services. It appears that, Ghana and the Northern region in particular face severe health service delivery challenges that make quality healthcare delivery in the hospital setting a difficult task (Mwabu *et al*, 1990). Factors such as poor health infrastructure, unavailability of services and incompetent management of the health services are visible threats to quality of healthcare delivery in developing countries (Cassels, 1995). The consumers of healthcare service continue to experience service shortfalls in public hospitals. This phenomenon continues to have dire consequences on families' health and affecting lifestyles.

Nevertheless, measuring the quality of healthcare is difficult and a daunting task (Ergulen, 2008). This is because quality of healthcare is affected by several variables which have not been clearly defined (Peyrot *et al*, 1993; Sahin *et al*, 2007). To measure the quality of healthcare, customer feedback (customer satisfaction) has been playing a very important role (Wisniewski *et al*, 1996). For instance, findings by America Express Global Customer Barometer, (2012) survey showed that, 55% of Americans walked away from an intended purchase because of poor customer service experience including healthcare service. According to the survey 61% of American companies have not improved their focus of providing better and quality services. This is evidence that poor service delivery is a global phenomenon and serious effort should be made to improve the quality of healthcare in Ghana.

Historically, several studies have been conducted aiming at understanding patients' perceptions of the quality of healthcare service they receive (Leatherman *et al*, 2003; Bradshaw *et al*, 2004; Hansen *et al*, 2008; Owusu *et al*, 2010). Evidence from empirical literature indicates that not much has been done on assessing the gap between patients' perceptions and expectations on the

quality of healthcare received (Duggirala et *al*, 2010; Suki *et al*, 2011). The strengths of previous studies provide useful concepts and strategies aims at improving the quality of healthcare received by patients. But there are apparent weaknesses in terms of measurement of prime outcome variables and deployment of insufficient theoretical models (Wang *et al*, 2003). This gap in knowledge provided the unique opportunity for this study. Besides, evidence had shown that research on NHI clients' expectations and their perception of quality of healthcare received at NHIS accredited facilities is limited. The purpose of this study was to assess the quality gaps between NHIS subscribers' expected quality of healthcare and their perceptions of the healthcare received at the Tamale Central Hospital, of the Tamale Metropolitan Assembly in the Northern Region.

1.3 Research questions

1.3.1 Main research question

- What is the Gap between NHIS clients' expectations and their perceptions of the quality of healthcare received at the Tamale Central Hospital?

1.3.2 Specific research questions

- What are the expectations of NHIS clients about the quality of healthcare service received at the Tamale Central Hospital?
- What are the perceptions of NHIS clients about the quality of healthcare received at the Tamale Central Hospital?
- What is the quality gap between NHIS clients' expectations and their perceptions about quality of healthcare received at the Tamale Central Hospital?

1.4 Research objectives

1.4.1 Main Research objective

- To determine the quality gaps between NHIS clients' expectations and their perceptions about the quality of healthcare received at the Tamale Central Hospital.

1.4.2 Specific Objectives

- To determine the expectations of NHIS clients about the quality of healthcare received at the Tamale Central Hospital
- To determine the perceptions of NHIS clients about the quality of healthcare received at the Tamale Central Hospital
- To identify the quality gaps between NHIS clients 'expectations and their perceptions about the quality of healthcare service received at the Tamale Central Hospital

1.5 Significance of the Study

The health sector plays a pivotal role in economic development and transformation of Ghana. The public is making more demands on health professionals and seeking more engagement in decisions about their healthcare (Offei, 2004). The dignity and respect patients received when they are deeply involved in planning of care are core drivers of satisfaction of both health and social care services (Wicks *et al*, 2009). The threat of poor quality of healthcare service, however, has led to loss of confidence in the health delivery system which influences patients' service utilization in public hospitals. This study aimed at understanding patients'expectaions nd perceptions of the quality of healthcare service to bring out lessons to serve as guiding principles for the improvement of the quality of healthcare service at the Tamale Central Hospital. Research has already shown that an

organization that consistently meets its customers' expectations for service could enjoy higher customer retention and contributes to greater profitability (Atinga *et al*, 2011).

Evidence about what matters most to patients had shown that improving the quality of service to patients will not only reposition the health service provider to improve healthcare services but enhance population confidence in healthcare delivery system and getting maximum health satisfaction and better service experience (Kotler *et al*, 2009; Fottler et *al*, 2002 Fitzpatrick, 1991). Also, findings of the study can be used to assess and draw some inference on the progress Ghana is making towards the attainment of the Sustainable Development Goals on healthcare delivery. Additionally, this study would serves as a reliable feedback for healthcare administrators with respect to patient's expectations and perceptions about quality of healthcare services. Such feedback can adequately reposition, and re-orientate the healthcare provider to achieve competitive advantage over others. Findings of the research would immensely contribute to literature on healthcare service from the Ghanaian perspective, and determining what patients' value most in any healthcare setting and their assessment of quality healthcare's delivery. Moreover, quality healthcare service concerns the most unpredictable stakeholder in the service environment (the patients) who remains the main character that keeps the hospital operations running.The study will assist the national health insurance authority to secure and maintain quality healthcare service to clients and create awareness among hospitals staff on the need to see patients not just as recipients of healthcare but people with rights that must be protected in both public and private hospitals.

1.6 Scope of the Study

The study covered NHIS out patients visit from Tamale and neighboring districts to the Tamale Central hospital. The study assessed the expectations and perceptions of the outpatients about the

quality of healthcare received at the hospital. The study was conducted within the period of June to August 2017.

1.7 Organization of the Study

The study is organized into six chapters. Chapter one, presents the general introduction comprising the background of the study, problem statement, research questions and objectives, significance of the study, scope and organization of the study. Chapter two is dedicated to the review of literature. Chapter three; discussed the methodology and procedure used in gathering data for the study. Chapter four presents the study results. Chapter five presents discussions of the findings of the study. Chapter six contained the summary of the key findings, conclusions and recommendations

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section presents literature relevant to the study. The chapter covers a review of the concept service quality, theories of service quality measurements, service quality dimensions and the study conceptual framework.

2.2 Definition of quality service

According to Zeithaml *et al, (*2000) service quality refers to deeds, processes and performances that benefit the service user. (Berry *et al,* 1988) also defined quality of service as meeting customer specifications of the service. In defining service quality (Park *et al,* 2005) argued that, service quality is determined by the consumer's overall mental picture of the relative inferiority or superiority of the organization and its services (Lee, 2006) defined service quality as, meeting or exceeding customer expectation. Previously, researchers had defined service quality in relation to perception gaps between customer expectations and perceptions of service (Lewis *et a*l, 1983; Parasunama *et al,* 1985; Webster, 1989). According to Zineldin, (2006) in his contribution, viewed service quality in the healthcare service as doing the right thing at the right time, in the right way for the right person. Some researchers emphasized that quality of service is about the satisfaction of patients' needs (Bergman *et al,* 1994; Evans *et al,* 1996). This definition was further expanded beyond satisfaction of customer needs by comparing satisfaction derived from one service provider with another service provider (Bojanic, 1991). Quality of service is a subjective concept because consumers interpret it differently (Gronroos 1984).

2.3 Customers' perceptions of service quality

Judging the level of quality of service is based on customers' perceptions of the service. Scholars have generally agreed that, economic success of service organizations depends on establishing a strong perception of high quality service in the minds of customers (Gilbert *et al,* 2006; Brady *et al,* 2001; Parasunama *et al,* 1988). The perceptual quality is particularly important in today's highly competitive market as companies seek differentiation in service in relation to customer loyalty (Gilbert *et al,* 2006 Brady *et al,* 2001; Hutton *et al,* 1995). Parasunama *et al,*1988) Perceived service quality is, therefore, the consumer's judgment about excellence of the overall service including every dimension of service such as: technical, functional, environmental and administrative aspects (Zeithaml,1988).

A positive perception of service quality occurs when a consumer's expectation of what should happen in a more general sense is met (Park *et al,* 2005;Laroche *et al,* 2004). A consumer satisfied with specific service encounter will overtime, establish a positive perception of the overall quality of service (Hutton *et al,* 1995;Parasunama *et al,* 1988). In a highly competitive market environment, firms must not only meet their customers' expectations but often must exceed them; striving to provide consumers with total satisfaction (Pritchard *et al,* 1997; Schneide *et al,* 1999; Le Bel, 2005).

2.4 Service quality in the health sector

Several studies on quality service have been carried out within the health sector. However, according to Al-hawary *et al,* (2011) there is no single definition that can properly delineate what quality of healthcare is all about. The American Medical Association, (1984), defined healthcare quality as, a service which consistently contributes to the betterment or maintenance of the quality or duration of life. The association further highlights disease prevention, health

promotion, and efficient use of resources as key variables in healthcare quality. Donabedian (1980) viewed healthcare quality as consisting of two parts: a technical task and an interpersonal exchange whereby doctors and patients discussed and agreed on treatment. He further argued that quality of care is made of structures, processes, and outcomes. Structure refers to the attributes of the settings in which care occurs. This includes the attributes of material resources (such as facilities, equipment and money), of human resources (such as the number and qualifications of personnel), and of organizational structures (such as medical staff organization, methods of peer review and methods of reimbursement). Process denotes procedures in giving and receiving care. It includes the patient's activities in seeking care and carrying it out as well as the practitioner's activities in making a diagnosis and recommending or implementing treatment (Robert *et al*, 2013). Outcome denotes the effects of care on the health status of the patients and the populations. Improvements in the patient's knowledge and salutary changes in the patient's behaviors are included under a broad definition of health status, and so is the degree of patient's satisfaction with care. It is worth noting that, structure as well as process of care can have influence over the outcome of healthcare (Campbell *et al.*, 2000).

The definition of health quality postulated by the Institute of Medicine (1990) highlights desired outcome consistent with professional knowledge. According to the Institute, health quality is a measure of the degree to which health services provided for individuals and populations increase the likelihood of desired health outcome and are consistent with current professional knowledge (Blumenthal, 1996). Similarly, (Ovretveit, 1992) in defining quality consider patients health needs and the cost to the provider. According to Gronroos (2000) even though there are several definitions of quality healthcare service in the literature, quality of healthcare service is a multidimensional concept which reflects a judgment about whether services provided for patients

were appropriate and whether the relationship between doctors and patients was proper. (Fuentes 1999) concurs to one of the traditional medical approaches to the definition of quality of healthcare focusing on the outcome of healthcare services from the point of view of the service provider whiles another approach emphasizes the process of healthcare from the patient's perspective (Newcome,1997).

In general, researchers define quality of healthcare services along two dimensions; technical service and interpersonal care of service (Goldstein *et al*, 2002; Li *et al*, 2000; Kane *et al*, 1997 O'Connor *et al*, 1989; Cleary *et al*,1988). These two dimensions have been explained below.

2.5 Technical quality of healthcare

(Brook, *et al* 1975) defined technical quality of care as the attainment of high health standards for patients. This also relates to the ability of hospitals to achieve high standards of health for patients through diagnosis and the use of acceptable procedures for treatment, which is geared towards creating physical or physiological effects on patients (Brook, *et al*. 1999). This definition has been expounded by (Tomes *et al*, 1995) who maintained that competence of the healthcare staff is relevant in defining quality care. However, Donabedian (1982) conceptualizes the salient aspects of technical quality as the qualifications of the provider; using the proper diagnostic equipment and selection, timing and sequencing of the medical diagnosis and treatment. The elements of technical quality are usually quantitative and somewhat straightforward to measure. Examples include: mortality and morbidity rates, treatment errors, average length of stay, readmission rates, and infection rates (Fitzsimmons *et al*, 2000;Anderson *et al*, 1996).

However, in the view of (Harrington *et al,* 2008) technical quality of healthcare comes under three elements namely; structure, process and outcome. These three elements serve as authentic standards for evaluation since they adequately encapsulate all aspects of technical quality. Structure deals with elements of the healthcare setting; it includes: the design, management and procedures. The Physical characteristics of staff are the two domains defined under structure. The physical characteristics capture elements such as: personnel, equipment and building, organization of resources and management opening hours and existence of booking systems for appointment. (Campbell *et a*l., 2000). The process element as part of the technical quality examines the appropriateness of an action taken and determines how they were executed. Therefore, the process of care is significantly intertwined with the technical and interpersonal aspects of care (Blumenthal, 1996; Steffen, 1988).

2.6 Functional or interpersonal quality of healthcare

Client quality generally deals with the functional or interpersonal processes and the skills exhibited by health professionals in the discharge of their duties (Gronroos, 2000). To the client, quality healthcare is one, which meets their needs, and delivered courteously and on time (Brown*et al,* 1990). In sum, client wants services that effectively relieve symptoms and prevent illness. This is because satisfied clients are more likely to comply with treatment and to continue to use health services. The dimensions of quality that relates to clients' satisfaction also affect the health and well-being of the community. Hence, patients and communities often focus on effectiveness, accessibility, interpersonal relations, continuity and amenities as the most important dimensions of quality. (Brook *et al,* 1975) argued that the client's perceptual quality of healthcare is the interactive relationship existing between the service provider and the patient. This definition is re-echoed by (Ovretveit,1992) who states that, client quality of healthcare deals

with patients' perception about the friendliness, timely delivery and feedback to the patients by the service provider.

Although, in broad terms, providing client centred quality has gained immense prominence in health literature, a number of researchers (Zeithaml et *al*, 2000; Weitzman, 1995) have suggested that besides interpersonal aspects of healthcare services, elements such as amenities in the health facilities must not be ignored in estimating client centred quality of the healthcare services since those elements influence client/ patient satisfaction of the healthcare service received.

2.7 Professional quality

Professional quality has two parts, the first strand measures whether the service provided to patients meet professionally assessed needs and the second aspect measures whether the necessary service procedures where correctly performed or done to meet the needs of the client (Ovretveit, 1992).

From the provider's perspective, quality care implies that the provider has the skills, resources, and conditions necessary to improve the health status of the patients and community according to technical standards and available resources. The provider's commitment and motivation depends on the ability to carry out his or her duties in an ideal manner (Brown *et al*, 2015).

Just as the healthcare system must respond to the patient's perspectives as it demands, professionals must also respond to the needs and requirements of the healthcare providers. In this sense, healthcare providers is to provide effective and efficient technical, administrative, support services in providing high-quality care (Overtveitt, 1992).

2.8. Various dimensions of healthcare service

A number of scholars have conceptualized quality within the health sector along various dimensions. (Baker *et al,* 2008) used a two-way approach to comprehend the dimensions of service quality in healthcare. According to them, clinical quality refers to the activities of healthcare processes and multifactor indicators such as: surgical skills, sufficient drugs, hospital comfort, support for providers, waiting time, appointment and visitors and the physical environment that translate to better health outcome and quality service (Gronroos, 1984;Lin et al, 2004).

Again, (Lehtinen *et al,* 1992) proposed a three-tier approach to health service quality. These are physical quality (it describes the conditions related to the buildings and the environment), corporate quality (profile and competitive image of the organization) and interactive quality (friendliness of staff vis-à-vis customer interaction and inter-customer communication. Other researchers (Kotler et *al*, 2009; Summer, 2009; Foster, 2009) identified eight service quality dimensions namely: reliability, availability, assurance, empathy, responsiveness, efficacy, tangible and communication as important dimensions influencing patient perceptions of health service quality.

(Rust et *al*, 1994) propounded a three- component model namely: service product, service delivery and service environment in the measurement of health service quality. Service product relates to the technical quality of the service; service delivery deals with the functional quality of the service whiles the service environment comprises of the internal and external environment. This model has not been tested by the proponents although support has been found for related models in health care samples (Alexander et *al*, 1994). The criticisms of the three-component

model in the determination of service quality is that patients lack the expertise to evaluate service quality due to the technical attributes of health services (Newcome, 1997; Bopp, 1990).

(Donabedian, 1980) also postulated three criteria for the assessment of quality in the healthcare setting. They are: structure, process and health outcome. Structure refers to a patient's rating of the physical environment and physical facilities in which the service place. Process refers to the patients rating of interactions with service personnel. Process indicators include: responsiveness, friendliness, empathy, courtesy, competence and availability. The healthcare outcome deals with improvement in a patient's health. These criteria to a large extent can be employed as tools in assessing quality however, the use of outcome as a basis for quality determination could be contestable as some health conditions are terminal (cancer) and cannot be cured despite the quality of care rendered.

Contributing to the dimensions of health service quality, (Brown *et al*, 1990) also described nine quality dimensions of health service delivery: such as effectiveness, efficiency, technical competence, continuity, and physical aspect of healthcare.(Yogesh et *al*, 2012) in similar way identified (10) dimensions of service namely: physical environment and infrastructure, personnel quality, image, trustworthiness, support, process of clinical care, communication, relationship, personalization and administrative procedures. It is argued that patients may encounter difficulties in evaluating the competence of health service professionals which will affect assessment of personnel quality. Again, dimensions such as relationship and personalization arguably appear to have some correlations and therefore these dimensions could have been integrated into a single dimension

2.9 Method and Techniques of Assessing Quality

One cannot talk about quality issues without factoring the concerns of customers. Increased contact with external and internal customers provides service managers with new ideas for improvement and ultimately assists a manager to measure and adjust performance against all-important barometer of customer satisfaction (Longenecker *et al*, 2003). There are several methods of finding what customers think about the service (Ovretveit, 1993). These include: talking to staff or clients about what clients like and dislike about the service, involves routine customer group meetings; a letter sent to a sample of clients; comments cards; free telephone lines for comments and complaints; observation against check-list; objective indicators of customer satisfaction, e.g. clients-cancelled appointments, demand and waiting times. Each method measures different things and used for different purposes in different situations.

2.10 Factors that affect customer (Patient) Satisfaction of service

Patients will be satisfied as long as their expectations and needs are regarded. The customer or patient satisfaction can briefly be formulated as (Sarp, 2004).

Customer Satisfaction (CS) = Expectation (E), Perception (P)

- If E > P, the there is a quality gap
- If E < P , there is no quality gap customer is satisfied
- If E = P, there is no reaction in terns of the quality gap.

As presented in the above equation, there are two factors that determine customer satisfaction of healthcare services: the customer expectations and perceptions. The customer expectations are defined as things that are important in health service and patients look for or want to see in healthcare institutions. Perceptions of patients are the way customers perceived the actual

healthcare services which the patients received in healthcare organizations. There are various factors that affect these. They are;

a) **Health Personnel patient interaction*;*** While patients are evaluating the quality of service the doctors provide, they pay attention to doctors' sensitivity, kindness and respectfulness. When doctors and patients have a positive relation between them, patients follow the treatment carefully and obey the suggestions that doctors gives. Besides, the behaviors of nurses have an important role on the patient satisfaction. For nurses, am I being kind, respectful and good-humored to effect the patient satisfaction in a positive way?

b) **Professional skills of doctors**; time of staying at hospital, for hospital being competent on its area, permanent illnesses that are occurred after the treatment, intervention to the patients on the right time, improving services by new technology and the speed of consultation services effect patient satisfaction directly.

c) **Information*;*** Informing patients and patients' relatives about a simple, non-technical and understandable skill and making decision about the treatment with the doctor make the person accept his/her illnesses much more easily. It has established that informing patients about their health status effects the patient satisfaction directly (Sarp 2004).

d) **Attainability and Availability**; Physical distance of the health-care company, easiness for transportation, giving services at nights and holidays, keeping specialist, meeting with doctor whenever it is required, waiting time (before the examination or during the treatment) effect patient satisfaction (Sarp, 2004).

e) Organizational and Physical Environment Conditions*:* Relations within the organization, working environment, possibility of communication, social and cultural activities, lightning,

heating, cleaning, ventilation, noise, parking and waiting halls effect patient satisfaction (Sarp, 2004).

f) Reliance*;* Informing patients, making patients feel that they are in a safety place and being careful about patients' privacy improve patients' trust. Hereby, patient satisfaction is obtained (Sarp, 2004).

g) ***Cost;*** Patients want to purchase the highest quality services with the lowest costs. Cost of services and easiness to pay for them are important for patients. Invoices with big amounts increase no satisfaction of patients (Sarp, 2004).

h) ***Bureaucracy***; The time that patients spend while they're applying to the hospital or the number of processes while they're receiving the services effect patient satisfaction directly (Sarp, 2004).

2.11 Customer satisfactions as an indicator of quality care

Customer satisfaction is the personal feelings, a consumer makes of the service following its usage (Solomon 1996, Wells *et al*, 1996; Metewa *et al*, 1998). The concept of satisfaction implies an assessment done by the customer in terms of service superiority and inferiority (Bitner *et al*, 1994). (Dispensa, 1997) observed that customers' satisfactions are means through which the service users would convey pleasurable information about the service to others with a view to convincing others to patronize it. At the polar end of such reasoning is the notion that, dissatisfied customer of a service will not only desist from subsequent patronage of the service, but will spread damaging information about the service to other users. Research had shown that high customer satisfaction contributes to the success of world health (Kohl *et al,* 1990; Jamal *et al*, 2002). The study by (Peprah, 2014) found that improving patients' satisfaction of service could improve hospital attendance and motivate patients to develop good health seeking

behavior. According to Donabedian, (1987) it's important to realize that patients help define the meaning of quality in the technical sense. Patients are also valuable sources of information in judging the quality of care and non-technical aspect of treatment. This is because consumers can and do, through expressing satisfaction or dissatisfaction, pass a judgment about many aspects of the process of care and its outcomes. Consumers, if properly informed, could help to regulate the quality of care by means of their choices. Moreover, their preferences of satisfied service are the paramount consideration in defining the quality.

The healthcare delivery is now entering an age of accountability where patients are demanding service excellence and patients in Ghana are increasingly becoming aware of their right to quality care and service satisfaction (Nketia *et al,* 2009). Service satisfaction by the patients is the pivotal force for business and hospital sustainability (Rust *et al,* 1994). Service satisfaction leads to service loyalty (Lewis, 1994;Turkson, 2009). Others also associated high profitability to patients' satisfaction of the quality of healthcare service with healthcare services (Gundersen *et al.,* 1996).

2.12 The models of service quality measurement

There are several theories/models used to study and to measure the quality of healthcare service. These models are applied to different field of studies, including health sector (Parasunama *et al,* 1988). Some of the models are discussed below.

2.12.1 The perception gap model

The perception gap model was developed by (Parasunama *et al,* 1985) to measure and explain the sources of service shortfalls in service organizations through users' perception of services. The model assumed that service gaps are responsible for variations in the quality of healthcare service received. This is expressed and evaluated as the difference between patients' expectation of service and the perceived performance of the service received (Parasunama *et al*, 1988). In

this perception model, it is recognized that perceptual quality can be determine by management and customers in service provision. As a result, the model identified five (5) different gaps, their sources and ways to improve and enhance service performance. The five perceptual service gaps include the following

- **Gap 1**: This measures expectation of management and perceptions and expectations of consumers
- **Gap 2**: This is management of the hospital's perceptions of consumer expectations and service quality specifications at the hospital.
- **Gap 3**: Service quality specifications of the hospital and actual service delivery by the hospital to the patients.
- **Gap 4**: Service external communication. External communications can affect not only patients' expectations of service but, also consumer perceptions of the service offered.
- **Gap 5**: Expected Service – perceived service gap is the key to ensuring good service quality in service meeting or exceeding what consumers expect from the service and that judgment of high and low service quality depend on how consumers perceive the actual performance in the context of what they expected. And also, fifth gap can be expressed as a function of other four gaps (Parasunama, Zeithaml, Berry, 1985). Gap 5 is the sum of all gaps (G1+ G2 +G3 +G5).

  The Gap - 5 in the perceptual model is relevant as the concern of this study is the external customers who are the patients. The study is to assess service gaps between patients' expectations and perceptions of the quality of healthcare service received. The gap 5 indicates factors responsible for external customer service gaps and their proportional importance in the delivery of the quality healthcare service to the patients. This can

enable healthcare providers decide which one of those gaps to address and the reasons that create service delivery gaps can be eliminated for quality healthcare service to be received by the patients.

The perceptual gap model was used in previous studies of quality healthcare service (Rose *et a l*, 2004; Taner *et al*, 2006; Saunders *et al*, 2009; Peprah, 2013; Kumaraswamy, 2012; Ramez, 2012; Bart *et al*, 2014). The studies concluded that the perceptual model is reliable and valid for quality hospital assessment. Again, (Babakus *et al*,1992) reached similar conclusions and indicated that the model is a standard instrument for measuring functional quality of healthcare.

However, the perceptual gap model for quality healthcare service measurement has been criticized based on the theory of confirmation/disconfirmation (Parasuraman *et al*, 1985; 1988; 1991). It argued that expectation scores have little effect on customer satisfaction of the quality of healthcare service received (Sharma *et al*, 2004; Nai-Hwa *et al*, 2008). Despite the criticisms, the validity and reliability of the SERVQUAL instrument, remains a vital model for measuring the quality of healthcare service (Buttle, 1996; Kumaraswamy, 2012).

2.12.2 Synthesized Service quality model

Another service quality model design to measure the quality of healthcare service is the synthesized service quality model. The model was created by (Brogowicz *et al*,1990) to identify and measure service delivery gaps in service organization. The synthesized service quality model measures potential customer service expectations as well as the actual customer perceptions of services (Nitin *et al*, 2005). The synthesized service quality model argued that quality gap may exist for patients yet to receive service, but learned about the service through advertising or through other media communications. The main elements associated with the potential patients' expectations and perceptions of service in the synthesized service model are the organization

image and interactive quality. The corporate quality is how potential clients view the image of the service provider and the interactive quality concerns the interactive nature of service. The image of the service organization is influenced by external influences and traditional marketing activities and other factors influencing patients' technical and functional quality of healthcare service (Nitin *et al*, 2005; Gunawardane, 2011; Lehtinen, 1982). The synthesized service quality model was adapted by (Joshi *et al,* 2013) to measure the quality of primary healthcare service and found that the model is suitable for effective and improving access, quality and coordination of the healthcare service. However, (Cronin *et al,*1992) criticized this model indicating that; the synthesized service quality model by its nature ought to be reviewed for a different type of service settings.

2.12.3 Performance only model

(Cronin *et al,* 1992) conceptualize the performance only model also known as the service performance model (SERVPERF). The performance only model measures the quality of service received by patients and their satisfaction of service received. In other words, the model is basically patients' satisfaction theory model. The model measures the performance of the healthcare service which is the result between patients expected service performance and the perceived performance outcome of the service. The assessment of quality healthcare service in this model is based on patients overall feeling towards healthcare, delivery and service satisfaction. The performance only model argues that service satisfaction is based on the consumer attitude and how he expected to be treated in service. It was therefore opined that service quality can be conceptualized as adequacy of the importance model and that performance instead of performance expectation determines service quality (Zeithaml *et al,* 1981; Nitin *et al,* 2005).

Several studies on quality service measurement adapted the performance only model (Pizzam *et al*, 1999) in their study applied the performance only model in the hospitality sector and found that service satisfaction is the result of comparison between outcomes and expectations of service. (Oslen *et al*, 2013) also applied and use the performance-only model in their study. The study found that importance-performance model was a better predictor of pediatric healthcare quality and conclude that performance model is superior for measuring and providing a deeper understanding of pediatrics quality healthcare and a better method for improving the quality of healthcare provided to children. (Amaratunga *et al*, 2002) applied the balanced score card (BSC) concept for measuring organizational performance within NHS facilities. The study concluded that a facility should review its performance on regular basis to ensure that services reflect the corporate strategy.

However, this model has been criticized based on the fact that findings cannot be generalized for all types of service settings. Also, the quantitative relationship between consumer satisfaction and the quality of healthcare service received need to be established and the model does not provide information on how customers will prefer service to be in order for service providers to make improvements (Matterson, 1992). According to Teas (1993) the evaluated performance model measures the gap between perceived performance, and the ideal amount of a dimension of service quality rather than the customer expectation.

2.12.4 Ideal value model of service quality

The ideal value model of service quality is another patient satisfaction quality service measurement tool (Matterson, 1992). According to Steinwach *et al*, (2012), the ideal model involves the use of the cognitive process through which the customers/ patients evaluate the quality of the service. In this model, the ideal quality of service is measured as a result of the

difference between the expected ideal value and the perceived ideal standards for the evaluation of quality healthcare service. The ideal model of quality of healthcare service reflects the hopes and wishes of the service user. (Steinwach *et al,* 2012) adopted the ideal value model in the study of service quality on patient safety and quality of service. The study found that, social factors financing systems, organizational structures and processes, health technologies and personal behaviors' affect access to healthcare and ultimately quality of the healthcare. The study recommended the operational role of nurses in ensuring patient safety and general health quality. The main challenge of the model is that fewer numbers of items are used for value and customer satisfaction. There is a need to define these items for all types of service settings when this model is applied in service quality study (Dobholkar, 1996; Spreng *et al*, 1996)

2.12.5. The service quality (SERVQUAL) model

The service quality model (SERVQUAL) is a service quality measurement tool espoused by (Parasunama *et al*,1990). The model has been designed to measure quality service from patients' perspectives. The SERVQUAL model view quality of healthcare service received by the patients as a unified and purposeful system of interrelated parts which comprises of five generic dimensions of service quality such as (tangibles, reliability, empathy, responsiveness and assurance). The framework has external customer who are the (patients) and these patients have both service expectations and service perceptions. The expected and perceptual notions are the attitudes patients look for or want to see in healthcare institutions that provide quality healthcare service According to the model, patients expected and perceived services are influence by past experiences, personal needs and external communication about the service and dimensions of quality service The judgment of patients about quality of services depends on how patients perceive the actual performance of service in the context of what they expect.

The differences between customer's expectation and perceptions of service are referred to as a service quality gap. The service quality gap can be positive or negative. The patient's perceived quality to be high where there is a positive quality gap that is when perceived quality exceeds expected service. Also, there is also negative quality gap, when patients' expected service exceeds the perceived quality of healthcare service received. This pre-supposes that every part of the framework including expectations and perceptions support each other to arrive at either perceived high or low- service quality gaps. When the sub-systems in the framework do not support each other, then the organization cannot focus on quality service management.

For patients to be able to evaluate and talk about optimum quality healthcare service received the dimensions of quality service should be proper to the scientific norms and standards and they should be perceived as high quality by patients (Devebakan, 2005). According to the SERVQUAL model the dimensions of service quality are

- **Tangibles:** These include the physical characteristics of the environment where health service is provided and also the external view of the staff, tools, supplies, and compliance with the technological developments
- **Reliability**: It includes providing the service perfectly the same way every time. It covers the topics such as fulfillment of services at the pre-specified time, and compliance of regulatory body
- **Responsiveness**: It means providing health service in a voluntary manner. It includes serving patients at the exact time, helping the patients and giving feedback, sending a document at the right time.
- **Assurance**: It is that, the health service given to patients must be far away from danger, risk and doubt. This dimension also includes the confidentiality of customer

information. An example of this dimension is to hold confidential a patient's information

- **Empathy**: This concerns the relationship between the staff and patients, including indicators such as personal attention to the patients' needs and how staff welcomes the patients' weakness in the provision of care.

The model receives feedbacks from the patients in the form of perceived service quality or service delivery gap. It is through this model that the organizational systems improve service. The framework therefore coordinates the activities of the entire organization and recognizes that service consists of individuals' perceptions and expectations and NHIS subscribers' demand on the healthcare service because for some valued services. Figure 2.1 illustrates the (SERVQUAL) framework which was adopted as the conceptual framework for this study.

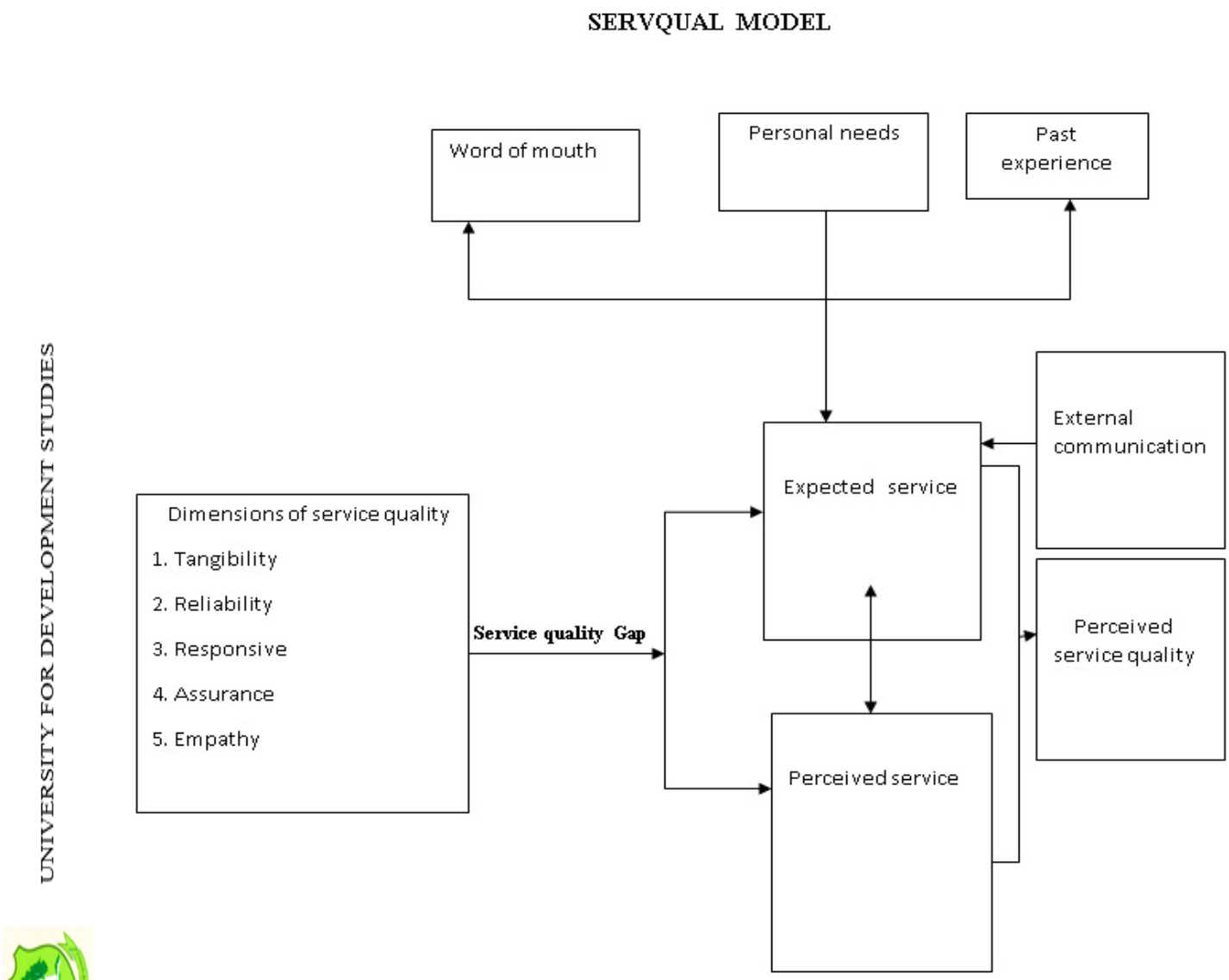

Figure 2.1: Conceptual Model of Service Quality (Parasuraman et al, 1990)

2.13 Synthesis of the Service quality dimensions of the (SERVQUAL) conceptual framework

2.13.1 Service tangibility

Generally, the tangible facets of service refer to the man-made physical environment of the service provider (Sureshchandar et *al*, 2002). In view of (Bitner, 1994) argued that the tangible or physical environment has three components: design factors, social factors, and ambient factors. The design factor consists of architectural aesthetics and layout design of the service provider.

Aesthetics can be used to make services more tangible, because customers' sense of the aesthetic design influences their perception of the quality of the service. Social factors can be termed association factors or factualization (Bitner, 1994). Association factors are elements of an object, place, event, and/or person.

Providers use association factors to illustrate their service. Ambient factors consist of background characteristics that affect the non-visual senses and may have a subconscious effect on customers, such as aroma, lighting, or noise (Bitner, 1994). Rust et *al*, 1994) also argued that the perception of service quality such as tangibility is based on the customer's evaluation of physical service factors such as design. (Sureshchandar *et al*, 2002) proposed that customers infer quality on the basis of their perceptions of physical factors so that tangible service quality influences intangible service quality.

Thus, because services are intangible and often require the customer to be present during the process, the tangible/physical factors can have a significant influence on perceptions of the quality of the service encounter (Bitner, 1992).

In the view of (Zeithaml, 1991) the continuum thought theorist said tangibility of service contain search qualities and search properties. The search qualities refers to these as services that cannot be seen, felt, tasted, or touched in the same manner in which goods can be sensed. They cannot be counted, measured, inventoried, tested, and verified before sale to assure quality. Services cannot be displayed, physically demonstrated or illustrated; therefore, they possess few search properties and many experience properties (Bitner, 1994; Cowell, 1989).

In similar manner (Santos, 2002) makes a distinction between tangibility and intangibility of service by defining tangibility as the degree to which a service provides a clear concrete image (McDougall *et al*, 1990). It is also argued by the theorist that tangibility of service is the most critical factor and unique character of service because intangibility is affecting both service users and management assessment of the service (Johns, 1999).

Service have certain element of tangibility and haven high proportion of tangibility reduce the risk of communicating quality service towards prospective customers (Grooroos, 1998; Levitt 1981; Santos, 2002; Harte *et al*, 1995) agreed that tangibility features are weighted differently on what kind of service that is concerned.

Theoretical and empirical data from environmental psychology suggests that customer reactions of the tangibility play an important role in generating excitement in service settings. This, in turn, plays a significant role in determining customers' patronage intentions and willingness to recommend (John, 1999). The perceptions of the tangibles influence people beliefs, about the service environment itself, and also appear to affect beliefs about other, seemingly unrelated, service attributes(Bitner,1994). (Rust et al, 1994) also argued that the perception of service quality is based on the customer's evaluation of physical service factors such as design. (Sureshchandar *et al*, 2002) proposed that customers infer quality on the basis of their

perceptions of physical factors since tangibles have a significant influence on service quality. Thus, intangible services often require the customer to be present during the process. In most cases, tangible evidence is limited to the service provider' physical facilities, equipment, and personnel. Without tangible evidence on which to evaluate quality; consumers might depend on other factors. (Bitner, 1990).

(Rushton *et al*, 1989) distinguished two kinds of service tangibles. The tangible surrogate is the surrounding of the intangibles and the tangible benefits could be seen as physical results which customer received from service performance. By making services received by the prospective customers more tangible the customer would be able to make an evaluation of it before purchase (Rushton *et al*, 1989). There is the general business consensus that the success of service is to make the service intangibility more tangible. It is further argued that consumers might actually recognized tangible aspect of service as more important than the actual service consumed (Santos, 2002; Dispensa, 1997).

The study by (Atinga *et al*, 2011) investigated patients' satisfaction on the quality of healthcare service received in two hospitals in northern Ghana. The questionnaire was based on the five service quality dimensions-communication, provider courtesy, environment, support/care and waiting time- and were administered to 324 patients (respondents). The study found support/care, environment of the facility and waiting time were significant determiners of patients′ satisfaction of the quality of healthcare service received. (Al-hawary *et al*, 2011) researched the quality of the healthcare services received by patients in King Abdullah Educational Hospital in Saudi Arabia. The study used 285 questionnaires which were administered to patients after a visit to the hospital.The questionnaire covered service quality dimensions such as communication, personal caring, equipment and facilities, location and accessibility. The study found that the quality of

healthcare received was high; the study concludes that professional staff and physical attractiveness of the hospital significantly boosted patient satisfaction of the quality of healthcare received (Zeithaml *et al,* 2000; Huntton *et al,* 2004; Ulrich, 1995).

(Biggers *et al,* 1982) reported that the exceptional performance of the tangibility dimension of healthcare can intensify patients' loyalty to a point at which they are impervious to competitive options. Empirical studies (Senarath *et al,* 2014; Esian *et al,* 2012) found that tangibility has a larger effect on perception and satisfaction of the quality of healthcare received. Another studies showed that, tangibility impact positively on patients' loyalty and service satisfaction (Ramez, 2012; Zaim *et al,* 2010). Similar studies on patients satisfaction of the quality of healthcare service shows that tangibility of the hospital influence service satisfaction to the patients (van Iwaarden *et al,* 2003;Parasunama *et al,* 1988).

2.13.2 Reliability of service

Reliability of service principles, according to the Institute for Healthcare Improvement (IHI) (2004) assists service providers to evaluate, calculate, and improve the overall reliability of complex systems in healthcare. The reliability principles, design systems that compensate for the limits of human ability, and improve safety and enhance the rate at which a system consistently produces desired outcomes. The high-reliability of health care service conceptual framework might enable health care organizations to chart a path towards high service reliability (Chassin *et al,* 2011). This, to a greater extent, influences the patient's perception of healthcare service quality. The (Joint Commission, 2009) stated that the leadership of all healthcare accredited organizations deliver healthcare services that maintains culture of safety" (Joint Commission, 2008).

This partly explains why, many hospitals now conduct staff surveys to assess their safety culture (Agency for Healthcare Research and Quality 2012; Sexton *et al*, 2006). A healthcare service provider that incorporate culture of safety operations would fully support high healthcare service reliability to the patients and this will contribute to trust and an improve service (Reason et al, 2003). The system reliability theory obviously seeks to enhance safe and positive experience for patients. Therefore, system reliability is the function of the integrated performance of all these.

The reliability model can be written as:

System Reliability = R (Patient admittance) X R (Diagnosis) X R (Treatment) X R (Post discharge follow-up).

In this equation R stands for reliability. A hospital may modify the model if this model is not comprehensive. This model assumes that each of these processes is independent of each other and each task must be performed right. If not, the laws of conditional probability apply (Raheja *et al*, 2006) .

Healthcare staff should exhibit enough trust in their peers and the organization's management that they routinely recognize and report errors and unsafe condition (Reliability Society, 2008). This fact was because for hospitals to reflect and continuously evaluate all methods to eliminate preventable deaths. Hospital mortality rates can be systematically reduced through reliable implementation of proven interventions (Reliability Society, 2008).

This is in line with the technical definition of reliability as the probability of successful performance of intended functions for a specified length of time under specified user (patient) environment. In a system where the severity of consequence is high, such as in hospitals, the goal is to achieve reliability as close to 100% as possible. This is called failure-free performance (Reliability Society, 2008). Similarly, (Kara *et al*, 2003;Dursun *et al*, 2004) conducted studies on

patient satisfaction on the quality healthcare service received. The study found that confidentiality, politeness, knowledgeable staff, and trust of the staff influence the satisfaction of the quality of healthcare to service received.

2.13.3. Responsiveness of service

The World Health Organization's new framework for health system performance assessment of health, essentially focus on responsiveness and fairness of health service as goals of the health system (Murray *et al*, 1999). The concept responsiveness relates to health promotion, prevention and rehabilitation as well as curative services, the most focused on part of the health system. Responsiveness in the context of a system can be defined as the outcome that can be achieved when institutions and institutional relationships are designed in such a way that they are cognizant and respond appropriately to the universally legitimate expectations of individuals WHO, (1999).

Responsiveness in healthcare can be viewed from two angles. Firstly, users of the healthcare system often perceived service responsiveness as a means of attracting consumers. Secondly, responsiveness is related to the safeguarding rights of patients to adequate and timely care through patient service charters (Owens *et al*, 1996). Surveys of patient experience have shown that providers of the primary healthcare services do not always respond well to the needs of different groups of patients and that certain groups of patients are often underserved (Dye *et al*, 1999).

Policy-makers, health-professional groups and patient representatives are united in calling for practices and other primary care organizations to move away from providing a 'one fits for all service. Instead, practices are being encouraged to become more responsive to the needs of

patients, particularly people in disadvantaged groups. Practices have to become more flexible in the way they provide services, and ensure that patients have choices which make it easier for them to have their needs met (Tokunaga *et al*, 2000**)** and, as far as consultation time is concerned, with quality of care.

It has been confirmed by studies that, such indicators of responsiveness are known to be associated with patient satisfaction and quality healthcare (Dye *et al*, 1999). Again, patient satisfaction represents a complex mixture of perceived need, expectations and experience of care (Smith, 1992). Quality of care satisfaction covers a wide spectrum. Structural quality satisfaction can be defined as relating to dimensions such as continuity of care, costs, accommodation and accessibility while process quality satisfaction involves the dimensions of courtesy, information, autonomy and competence (Campen *et al*, 1998).

Several other studies found that hospitals that provide responsive quality healthcare service to patients give more satisfaction to the patients. In a cross-sectional study by (Essiam, 2013) which was undertaken to measure the perceived quality of healthcare in public University Hospital in Ghana, the study found that patient's satisfaction of healthcare service was best explained by perceived responsiveness of service. Studies conducted by others (Aldana *et al.*, 2001; Jabnoun *et al*, 2003; Atinga *et al*, 2011) found that service responsiveness contributes more significantly to patients' satisfaction of healthcare.

The provision of healthcare service with responsiveness ensures that, the patient is adequately informed about his/her conditions and can participate in discussion and choice on appropriate interventions and can allay patient anxieties improve care and healing (Institute of Medicine 2001).

Studies have also shown that providing consumers with more service-specific information and guidance on how to put the knowledge into practice results in positive community health outcomes. In Thailand malaria programme had developed women's knowledge and skills through service responsiveness which assisted patients to prevent malaria while also increasing their self-esteem and confidence to empower community members (Geounuppakul *et al*, 2007).

Providing the information, and procedures for public engagement, this suggests that no public service provider can afford not to be responsive to informed opinions of the citizen healthcare needs (Geounuppakul *et al*, 2007).

2.13.4 Empathy of service

The scientific foundations of service empathy exist in all service organizations. The concept of empathy has a long history. In his 1759 book "The Theory of Moral Sentiments;" (Adam Smith, 1976) recognized its importance when he wrote that our moral sensitivity derives from our mental capacity for 'changing places in fancy with the sufferer. Empathy plays a central role in creating a satisfactory customer experience in healthcare and has also been a force for creation of solidarity.

This is clearest in relation to the expansion of patients' rights. The role of empathy in healthcare is complex and often contested. Empathy has been positively linked to improved outcomes in patient health (Brotheridge *et al*, 2002). There are also well-documented negative effects for clinicians over the long-term using sentimental work and emotional labor (Larson *et al*, 2004). Emotional labor is "the act of expressing organizationally desired emotions during service transactions with a client or patient.

In healthcare settings, the emotional autonomy of the clinician is reduced to better satisfy the expectations of the patient, thus improving health outcome (Brotheridge et *al*, 2002). Empathic, patient-centered care is associated with better healthcare (Little *et al*, 2001) and more patient enablement (Mercer *et al*, 2012). According to Francis *et al, (*2013) sympathy, empathy, and compassion are closely related. They are often used interchangeably within healthcare policy, service delivery and research in describing some of the human qualities that patients desire in their healthcare providers. Sympathy has been defined in the healthcare literature as an emotional reaction of pity toward the misfortune of another, especially those who are perceived as suffering unfairly (Post *et al*, 2014).

According to Way *et al*, (2012) compassion is marked by the following three elements: recognizing suffering, relating to people in their suffering, and reacting to suffering. While there have been studies conducted on the nature of compassion. In face-to-face or phone conversations, it is easier for well-trained customer service staff to generate empathy because they have the benefit of using visual cues and tone of voice to make understanding easier.

In 1909 the American psychologist Edward Titchener coined the English word ‘empathy’, based on the German term Einfühlung, which referred to the way that we could ‘feel into’ other people’s emotional worlds. Today’s psychology textbooks typically describe two different kinds of empathy. Affective empathy is about mirroring or sharing other people’s emotions. So if you see anguish on a child’s face and you too feel anguish, that is affective empathy. If, on the other hand, you notice their anguish but feel a different emotion, such as pity (‘Oh, the poor little thing,’ you might think), then you are showing sympathy rather than empathy. Sympathy generally refers to an emotional response that is not shared.

The empathy effect by (Krznaric, 2007) includes sharing positive emotions such as joy, which distinguishes it from the concept of 'compassion', which does not involve positive emotional resonance. The second type of service empathy is cognitive empathy or 'perspective-taking empathy. This is where health care service providers really try to put themselves in the shoes of another patient and imagine their values, experiences, hopes and fears – their whole mental outlook (Bloom, 2013).

We do this quite naturally all the time. You might walk past a sick person on the street and rather than just feeling sorry for her (which is sympathy) you try to imagine what it might be like to 'be, or to have somebody walk straight past you without looking you in the eye (Bloom, 2013) In practice, both these forms of empathy are closely intertwined (Krznaric, 2004).

The more we connect with someone's feelings, the more likely we are to try to understand their perspectives, just as looking at the world from another's viewpoint makes us care more about their emotions. The public perception of empathy typically focuses on the affective component – feeling the pain and suffering of others (Krznaric, 2004).

But the cognitive component of empathy is just as important, for two key reasons. First, it is the basis of having an appropriate response to others' needs. Too often an emotional outpouring of sympathy and compassion leads to social action that doesn't meet the essential requirements of those in need. Second, there is acknowledgement the recognize that throughout human history failure to take the perspective of 'the other' has been at the root of prejudice, exploitation and violence (George, 2005). Empathy is sometimes – mistakenly – equated with the Golden Rule, 'Do unto others as you would have them do unto you'. But it requires something more. As (George, 2005) pointed out, 'Do not do unto others as you would have them do unto you – they

might have different tastes.' It's an amusing quip that makes a serious point about the importance of cognitive empathy (Krznaric, 2014).

2.13.5 Assurance of service

The assurance dimension in SERVQUAL refers to the knowledge and courtesy of employees of the hospital and their ability to inspire trust and confidence (Parasunama *et al*, 1988). The inseparability of production and consumption and the co-production of services (Grönroos, 1990). Healthcare is a high involvement service and all contacts between health practitioners and patients are important and complex (Bansal, 2004). This interpersonal aspect of healthcare is also noted by (Orava *et al*, 2002). The assurance perceived by patients can enhance this interpersonal relationship with health practitioners and ensure the reliable and uninterrupted delivery of critical healthcare.

The assurance service as perceived by customers is an important dimension of service quality in any industry (Zeithaml *et al*, 1990) but even more so in the health care industry where customers associate quality with perceptions of human factors (Butler *et al*, 1996). Assurance is especially critical where trust and confidence in the service provider are crucial (Branssington *et al*, 2000) and this clearly is also applicable to the health care sector (Van Der Schee *et al*, 2006).

Assurance and the assessment thereof should clearly be an integral part of healthcare delivery strategy. An increasing number of health care organizations are implementing the principles of quality management to improve and maintain the quality of care (Ovretveit, 2004) while at the same time controlling costs (Eiriz *et al*, 2005). It is crucial and necessary to understand patients' perceptions and expectations of the quality of care, because the perceived quality of health care services often influences the consumption behavior and patterns of health services (Baltussen,

et al, 2002).

It is crucial to understand patients' perceptions and expectations of the quality of care, because the perceived quality of health care services often influence the consumption behavior and patterns of health services and determining the factors associated with patient's satisfaction is an important topic for the health care provider in order to understand what is valued by patients, how the quality of care is perceived by the patients and to know where, when and how service changes and improvements could be made (Baltussen *et al*, 2002).

To ensure healthcare assurance, many organizations today are implementing innovative technologies to improve the overall efficiency, quality, speed and security of patient care and making sure that health delivery information gets to the right person at the right time. Therefore, delivering service assurance solutions for healthcare organizations, with the impact of improving high service quality is crucial for healthcare organizations (Baltussen *et al*, 2002). The study conducted by (Zeithaml *et al*, 1993) on patient's healthcare satisfaction found that giving the healthcare service perfectly as the same way every time, and also showing interest in resolving patients' problems in compliance with service regulation enhance service quality and healthcare satisfaction.

2.14 The National Health Insurance Scheme and quality healthcare service

The National Health Insurance scheme model has increasingly been seen in many low- and middle-income countries (LMICs) as a vehicle to universal health coverage (UHC) (Danish International Development (DANIDA), 2012). Several countries, including Ghana, have thus introduced and implemented mandatory national health insurance schemes (NHIS) by passing national health insurance (NHI) legislations NHIA (2010).

In Ghana, the primary goal of the introduction of the NHIS Act, 2003 Act 650 was to improve financial accessibility of Ghanaians especially the poor and the vulnerable, to basic quality healthcare services. In the revised NHIS Act 2013, the national governing body of the NHIS is mandated "to secure the implementation of a national health insurance policy that ensures basic healthcare services to all residents" (Act 650, Section 2 (1)). Section 3 of the Act establishes the governing body of the Authority.

The regulatory body (NHIA) must see that healthcare providers put in place programmes that secure quality assurance, and technology assessment to ensure that:

- The health care delivered is of reasonably good quality and standard;
- Basic health care services are of standards that are uniform throughout the country;
- The use of medical technology and equipment are consistent with actual need and standards of medical practice and ethics; and
- Drugs and medication used for the provision of healthcare in the country are those included in the National Health Insurance Medicine List of the Ministry of Health.

2.15 Conclusions from the literature review

There is no clear consensus in the reviewed literature on definition of quality of healthcare. What is obvious from the literature is that the debate on quality of healthcare service is unending and therefore no consensus on what constitutes the best quality healthcare service. Rather, a combination of several approaches and methods exist that could promote and enhance quality healthcare service to patients.

Quality can be understood from different perspectives of all stakeholders involved in the provision of healthcare services. The literature reviewed showed some similarities, especially the

approaches adopted by different authors to measure quality of healthcare service. The models reviewed have been conceptualized and applied in several jurisdictions with different quality measurement indicators with the ultimate goal of improving and enhancing the quality of healthcare service to the patients.

It is obvious that, they are different in terms of design applications and their criticisms. Some of models need adequate and thorough review before they can be applied to measure the quality of healthcare service received by the patients. Also, the models were developed and applied in countries with different economic and socio-cultural setting to evaluate the quality of healthcare service. Some applied to compare the quality of service in public and private hospitals and others were department specific.

The review of the literature exposed several lapses and weaknesses of the models employed in the measurement of healthcare service quality. The purpose of the study is to close all the data gaps in the review literature, so as to improve the delivery of the quality healthcare service to patients. Interestingly, the review literature had some grey areas about service expectations and perceptions in the Northern region which have not been adequately answered.

CHAPTER THREE

STUDY METHODOLOGY

3.1 The Study area

The study was conducted in the Tamale Metropolis. It is one of the twenty (26) political and administrative districts in the Northern Region. Located at the centre of Northern region, approximately 175km east of longitude 1^0 west and latitude 9^0 north. It consists of two sub-metros Tamale South Sub-Metro and Tamale Central Sub-Metro. The population of the area is about 406696 with the projected growth rate of 2.9% (Ghana Statistical Service, 2010). The population growth rate of the Metropolis is 3.5%, which is higher than the regional and national growth rates of 2.9% and 2.8% respectively (Ghana Statistical Service, 2010). The total land surface area is about 1011 sq. km., which constitute about 13% of the Region. Its population density stands at 363 persons per sq. km. (Tamale Metropolitan Assembly, 2009). The Metropolis is found on tropical climatic zone and experiences rainfall from April/May to October, with the highest occurring in July/August, which is influenced by South Westerly winds. The annual rainfall recorded is about 1100 mm with only 95 days of intense rainfall. The dry season starts from November to March, which is influenced by the dry North Easterly (Harmattan) winds.

In urban Tamale, there is ethnic diversity, but the Dagombas constitute almost 80% of the total population (Ghana Statistical Service, 2010). Islam is the most predominant religion in the Metropolis with about 84% of the population affiliated to it (Ghana Statistical Service, 2010). Christians constitute 13.6% (with Catholics forming 43.7%), traditional worship about 1.6% and others forming less than 1%.

There are a number of health institutions operating in the metropolis to address the healthcare needs of the inhabitants. The health facilities include primary, secondary and tertiary hospitals. The service utilization at the hospital both inpatients and outpatients is on the increase. The OPD per capita have increased from 0.12 in (2010), to 0.13 in (2011). (Tamale Central Hospital Annual Report, 2010). The National Health Insurance Authority regionally has an active membership of 1,207,337. Out of this , 233,394 are indigents representing 42% of the 2,837,105 (2016) regional population (NHIA, 2017). The Metropolitant NHIS has an active membership of about 133,674, and 18,851 are indigents. The OPD utilization by NHIS subscribers' has increased gradually from 46,181 in (2010) to 51,303 in (2011), (Tamale Central Hospital Annual Report 2010).The claims submitted for inpatients and outpatients' treatment stood at GH 977, 3.26 as at (2012) against the total regional submission of GH285, 659.05 (Annual Hospital Report 2010). The doctor to patient ratio was 1;1000. The success of treatment at the hospital was about 94.3% in the year (2008) and fell to 88.0% in (2010). The bed occupancy rate at the hospital was 86.8% as at 2012 and average length of stay was 2.8% and turnover per bed was 55.6%, (Tamale Central Hospital Annual Report 2010).

The Tamale Central Hospital has commitment to deliver quality healthcare and also serves as a referral facility to several districts in the Northern Region. The Mission Statement of the hospitals is to provide quality and affordable healthcare service; delivered by highly motivated trained staff to offer friendly healthcare services. Tamale Central Hospital provide a range of service such as general outpatient care, Gynecological care, Fistula services, Diagnosis and management of common infections, pediatric services, pharmaceutical and diagnostic services etc. The hospital is endowed with medical practioners such as. the general surgeon, gynecologist, physician assistant pharmacist and host of nurses and midwives. The services that are delivered

to the subscribers makes it the best friendly hospital in the metropolis to patients. This unique role perform by the hospital and many other reasons explain why the hospital was selected for the study. The challenges confronting the delivery of healthcare include infrastructure inadequacies, structural defects; high maternal death rates, lack of blood banks and X-ray services, and personnel.

3.2 Study design

The study design was cross sectional survey. The approach was adopted to collect quantitative data from NHIS clients' seeking treatment at the hospital, using servqual questionnaire. The benefit of the design includes low cost per contact of the respondents and easy data collection and analysis.

3.3 Study population and sampling

Tamale Central Hospital was selected for the survey. The study population comprises active NHIS subscribers of all categories within Tamale metropolis and neighboring districts who were visiting the Tamale Central hospital for healthcare. There are concerns from this NHIS subscribers' that, insured clients are not receiving the needed attention from service providers and this affects the quality of service received at the hospitals. The study population constitute clients' of the NHIS healthcare services.

The sample size for the study was determined based on 1400, NHIS outpatient's attendance per month. The formula for calculating the sample size, with a known study population was used to determine the sample size, at 95% confidence level and 5% margin of error (Leedy *et al*, 2001; Creswell *et al*, 1994).

Formula

$$S = \frac{N \times n}{100}$$

S= Sample size

N= number of units in the population from 1 to N

n= decide on the n (sample size) that you want or need

100= given percentage

Number of outpatients=1400

$$S = \frac{1400 \times 20}{100}$$

S= 280

Total Sample size =280

Systematic sampling technique was used where the total population of 1400 was divided by the sample size of 280 to obtain a sample interval of five (5) and then every 5th person existing from the facility after seeking healthcare was sampled for the study. This was done over a number of days until the sample size was met. The advantage of the method is that it produces a random sample that is relatively free of bias.

3.4 The types of data and sources

The survey gathered two kinds of quantitative data, one of the data was respondents' prior expectations in visiting the hospital, and the second was respondents' perceptions of the actual

service after receiving healthcare in order to measure the quality of service received. Primary data was used and the source was the outpatient's questionnaires.

3.5 Methods and instruments of data collection

The study used survey method and the study instrument was questionnaire. The service quality questionnaire was adopted which was made up of 24 statements each comprising five dimensions of service. Each statement contained two different questions regarding respondents' prior expected quality of service and the actual quality of the service received. In reality, the measurement was completed through 44 different statements. The number of statements varied from service dimension to dimension: tangibles 1-6, reliability 7-11, responsiveness 12-15 assurance 16-19, and empathy 20-24. The tangibility variables were: use of up-to-date (modern) equipment, physical facilities are visually appealing, well dressed and neatness of employee appearance, appealing patient educational materials, hospital cleanness, and cleanness of treatment equipment. The reliability variables were: promises are fulfilled by the hospital, the staff show interest in solving problems, hospital gets things right for the first time, hospital keeps records accurately and hospital tells patients exactly when services would be delivered. The responsive variables were: staff provides quick and prompt service, staff are always willing to help patients, staff are never too busy to respond to request, and behavior of staff instills confidence. The assurance statements covered: you feel safe dealing with the hospital, nurses are consistently courteous to you, staff have the knowledge to answer questions and staff gives you attention. Finally, the empathy statements covered: staff gives individualized attention, operating hours of the hospital are convenient, staff gives personal attention, the hospital has your interest at heart and the hospital understand your specific needs. All questions were closed-ended. The five-point Likert scale was use to rate respondents expected and actual service received ranking

from strongly disagreed to strongly agree. The questionnaires were administered by trained research assistants through exit-interviews.

3.6 Techniques of the data analysis

All the primary data collected from the survey were checked and verified for their correctness and completeness. The field questionnaires numbered serially, edited, coded and imputed into 24 discrete categories such as Tangibles T1-T6, Reliability RBT1-RBT5, Responsive RV1-RV4, Assurance A1-A4, and Empathy E1-E5. For each of the items, the coding of the responses of the Likert scale was 1 for completely (strongly) disagrees to 5 for completely or strongly agree. Excel and SPSS software were used for the data analysis. Two forms of data analysis were performed comprising univariate and bivariate analysis. For the univariate analysis, descriptive analysis was conducted. Simple frequency tables and percentages were generated to illustrate respondents' basic characteristics and the rating of their expectations and perceptions of each of items under the various service quality dimensions. The bivariate analysis was conducted to identify the service quality gaps between the respondents' expectations and perceptions of service received. The paired mean approach was used to estimate the gaps between expectation and perception. The mean difference for each service quality dimension was determined and its associated significance level examined by a paired mean difference test at the 5% significance level.

3.7 Quality Control

Several steps were adopted to ensure quality control in the study. Pre-testing of the questionnaire and other data collection tools was done in a nearby clinic in the (Sagnarigu District) to identify strengths and weaknesses of the tools. The questionnaire was enriched by the feedback from the pre-testing. Research assistants were trained on the data collection instruments and its

administration. The analysis of the data was harmonized through coding to eliminate potential errors in data analysis. The purpose of this was to resolve structural methodologically lapses during data collection and analysis. A second interview, in some cases was conducted to cross check the validity of responses.

3.8 Ethical Consideration

The study was carried out in compliance with ethical principles. The consents of respondents were obtained and approval granted to access their views on the topic. The respondent's identity was not disclosed in the study questionnaire. The rights and privacy of the respondents were maintained during the study. The respondent's time would improved quality of service delivery at the hospital. The findings of the study would also be disseminated to all interested stakeholders whose concern is to improve quality health care service in the region and beyond.

3.9 Limitations of the Study

There were some limitations to the study, the limitations were resolved by enhancing the quality of the study. The under listed are some of the limitations and how they were resolved during the study.

Perceptions and expectations on service quality relied on self-recall after going through the service. The self-recall after going through the service can be problematic and tainted with bias or influence by factors outside the health delivery hospital. This limitation was addressed by immediately conducting interview at the point of exit to obtain unbiased recall views of the outpatients on service quality.

Problem of sample size, the use of large sample size improves the overall variable performance and its statistical power. However, small sample size will be difficult to find significant

relationship the sample size was calculated based on survey principle and the score on measured variables was representative enough of the population scores

The problem of ranking impressions and expectations**;** one problem with value ranking is that, we do not know if the ranking shows, what respondents value, or what they believe should be valued. The rating of quality variables was done with explanation to respondents on the various scales and what they stand for easy understanding in the data collection process.

CHAPTER FOUR

PRESENTATION OF RESULTS

4.1 Introduction

The results are presented in line with the five dimensions of the service quality (SERVQUAL) framework adopted for the study. Under each service quality dimension, the measurement of expected and perceived service and the gaps between expected and perceived quality of service are presented and analyzed.

4.2 Background Characteristics of NHIS Subscribers'

A total of 280 NHIS clients' were sampled for study. However, the total number of questionnaires that were successfully administered was 200, which represents about 71% response rate. The respondents' demographic characteristics which were relevant and important to the study are presented on table 4.1

Table 4. 1 Demographic Characteristics of the Subscribers'

Variables	Frequency	Percentage
Sex		
Male	80	40%
Female	120	60%
Ages		
<20yrs	30	15%
30-39yrs	136	68%
40-69rs	24	12%
50-59YRS	10	5%
Married status		
Married	101	50.5%
Widowed	30	15%
Single	59	29.5%
Divorce	10	5%
Education		
Non-formal education	8	4%
Primary/Secondary	102	51%
Tertiary	90	45%
Occupation		
Public servant	70	35%
Self employed	18	9%
Student	22	11%
Unemployed	90	45%
Total	200	100%

Table 4.1 depicts the characteristics of the NHIS subscribers'. The results showed that majority of the subjects, were female (60%). The study revealed that majority (68%) of the NHIS subscribers' were between the ages of 30-39. The results further showed that 50.5% of the NHIS subscribers' were married. On NHIS subscribers' educational achievements, the result showed that 51% of the subcribers' had primary/senior high education while 45% of the subscribers' attended tertiary institutions. The result further showed that 4% of the NHIS subscribers' had non-formal education. Again, on employment status of the subscribers' the result showed that

44% were unemployed, 35% were public servants, 11% of the NHIS subscribers' were students and only 9% were self-employed.

4.3 Tangibility of service quality dimension

4.3.1 Respondents expectations and perceptions of service tangibles

This sub-section presents the results on the NHIS subscribers' expectation and perceptions relating to the tangibility items such as: the use of up-to -date modern equipment, visual appealling physical facilities, dressing and appearance of the health workers, appealling patients educating materials, cleanness of the hospital and cleanness of the equipment. Results on each of these variables are illustrated in a separate table.

Firstly, table 4.2 provides details of the results of NHIS subscribers' expected and perceived quality of healthcare in relation to the use of up-to-date modern equipment as one of the service tangibles.

Table 4. 2 Service user expectations' and perception of the use of up-to-date modern equipment

The use of up-to date modern equipment	**Expectation**		**Perception**	
	Frequency	Percent	Frequency	Percent
Completely agree	197	98.5%	192	96.0%
Moderately agree	2	1.0%	5	2.5%
Neither/Disagree	0	0.0%	0	0.0%
Moderately agree	0	0.0%	1	0.5%
Completely disagree	1	0.5%	2	1.0%
Total	200	100.0%	200	100.0%

As shown in table 4.2 above 98% of the NHIS subscribers' prior to visiting the Tamale Central Hospital strongly expected the hospital to use modern equipment to deliver healthcare service and after visiting the hospital to access care, 96% of the NHIS subscribers' strongly perceived

that, the hospital actually used modern equipment in healthcare delivery. Therefore, it is clear that modern equipment was one of the physical inputs and strongest means that helped NHIS subscribers' at the Tamale Central Hospital to obtain quality healthcare service.

Secondly, table 4.3 illustrates NHIS subscribers' rating of their expectations and perceptions of the visual appeal of the physical facilities at the hospitals.

Table 4. 3 Service user expectations and perception of the visual appearance of physical facilities

Visually appealing Facilities	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	188	94.0%	191	95.5%
Moderately agree	7	3.5%	6	3.0%
Neither/Disagree	0	0.0%	0	0.0%
Moderately agree	0	0.0%	1	0.5%
Completely disagree	5	2.5%	2	1.0%
Total	200	100.0%	200	100.0%

As indicated in table 4.3 the results showed that 94% of the subscribers answered that they completely agreed to the statement that the hospital facilities were virtually appealing, 4% of the subscribers moderately agreed and 3% of the NHIS subscribers' completely disagreed to the statement. After receiving care, About 96% of the NHIS subscribers' perceived that the hospital was very attractive.

Thirdly, table 4.4 illustrates NHIS subscribers' rating of their expectations and perceptions of staff appearance. From the table 89% of the NHIS subscribers' strongly agreed that they expected discent staff to deliver service, and after seeking care, about 93% of the NHIS subscribers' completely agreed that the staff were neat in appearance and only 1% of the subscribers could not decide. This shows that vast majority of the NHIS subscribers' agreed that staff of the hospital dressed decently.

Table 4. 4 Service user expectations' and perception of staff appearance

Staff and employee's neat in appearance	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	178	89.0%	186	93.0%
Moderately agree	12	6.0%	10	5.0%
Neither/Disagree	1	0.5%	1	0.5%
Moderately agree	4	2.0%	2	1.0%
Completely disagree	5	2.5%	1	0.5%
Total	200	100.0%	200	100.0%

Furthermore, the Patients' educational materials are means through which NHIS patients' could get health education and good healthcare practices. As can be seen, in table 4.5 the result showed that, a large number of the NHIS subscribers' expected materials used for health education to be appealing and attractive, with 83% completely agreeing to the statement. Interestingly after receiving healthcare, 91% of the NHIS subscribers' completely agreed that education materials were attractive.

Table 4. 5 Service user expectations' and perception on education materials

Patients education materials	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	165	82.5%	182	91.0%
Moderately agree	22	11.0%	15	7.5%
Neither/Disagree	2	1.0%	1	0.5%
Moderately agree	0	0.0%	1	0.5%
Completely disagree	11	5.5%	1	0.5%
Total	200	100.0%	200	100.0%

In addition, table 4.6 presents results on the cleanness of the hospital environment. For good and better quality healthcare services, neat environment plays an important role. Eighty three percent (83%) of the NHIS subscribers' said they had high expectations bordering cleanness, while more than half (67%) of the subscribers' after experiencing the service perceived the hospital to be

clean, 8% of the NHIS subscribers' completely disagreed and 7% of the NHIS subscribers' could not decide.

Table 4. 6 Service user expectations' and perception on cleanness of hospital

Cleanness hospital	Expectation		Perception	
	Frequency	**Percent**	**Frequency**	**Percent**
Completely agree	166	83.0%	134	67.0%
Moderately agree	15	7.5%	30	15.0%
Neither/Disagree	9	4.5%	14	7.0%
Moderately agree	4	2.0%	6	3.0%
Completely disagree	6	3.0%	16	8.0%
Total	200	100.0%	200	100.0%

Lastly, table 4.7 presents the data on the use of clean tools and equipment in delivery of service. Quality of care is often affected by unclean tools and equipment in service. This statement was to establish the value place by the NHIS subscribers' on clean working tools in service delivery process. Majority of the NHIS subscribers' (74%) completely agreed that clean tools are important and hence were expecting clean tools to be used as compared to 71% of the NHIS subscribers' who strongly perceived that the working tools and equipment were actually clean..

Table 4. 7 Service user expectations' and perception on using clean equipment

Using clean equipment in treatment	**Expectation**		**Perception**	
	Frequency	Percent	Frequency	Percent
Completely agree	148	74.0%	141	70.5%
Moderately agree	7	3.5%	37	18.5%
Neither/Disagree	5	2.5%	13	6.5%
Moderately agree	3	1.5%	5	2.5%
Completely disagree	37	18.5%	4	2.0%
Total	200	100.0%	200	100.0%

4.3.2 The respondents perceived service quality gaps on service tangibles

The results in table 4.8 shows that there are perceived quality gaps between NHIS subscribers' expected and perceived service quality in relation to the tangible items.

Table 4. 8 Comparing expected and perceived' service on tangible

Service Tangibles (N=200)	Perception		Expectation		Quality Gap	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean difference (MD)	P-Value
Modern equipment	4.920	0.474	4.970	0.299	-0.050	0.2120
physical facilities are visually appealing	4.920	0.441	4.865	0.647	0.055	0.3260
Employees are well dressed and neat in appearance	4.890	0.479	4.770	0.781	0.120	0.0690
Patients educating materials are appealing	4.715	0.904	4.650	0.955	0.065	0.4840
The hospital is always clean	4.300	1.224	4.495	1.143	-0.195	0.1020
Equipment uses in treatment are clean	4.530	0.879	4.580	0.899	-0.050	0.5890

The results showed that on average the highest expected service quality by the NHIS subscribers' was associated with up to date modern equipment (Mean = 4.970) followed by physical facilities being visually appealing (Mean = 4.865) next was employees being well dressed and neat in appearance (Mean = 4.770), and the least expected service by the subscribers among the six tangible items was the use of clean equipment uses in treatment (Mean= 4.580). On the other hand, the highest perceived item by the NHIS subscribers' was the use of up to date modern equipment (Mean = 4.920), followed by physical facilities are visually appealing (Mean = 4.920) and the least perceived service item was the hospital is always clean (M = 4.300).

By comparing the NHIS subscribers' prior expectations of the service and what was received, there were both (positive) and (negative) perceived quality gaps at the Tamale Central Hospital. The greatest positive perceived quality gap existed in area of employees' appearance (MD= 0.120; p=0.0690) The next greatest perceived quality gap also existed on visual appeal of

educational materials (MD= 0.065; p=0.4840). The greatest negative perceived quality gap was recorded on cleanness of hospital (MD=-0.195; p= 0.1020). The second biggest negative quality gap was the use of up to-date equipment (MD=-0.050; p=0.5890). Since all the p-values associated with the gaps were greater than the 0.05, all the tangible service quality gaps were not statistically significant. This implies that there is no significant evidence that NHIS subscribers' expectations about the quality of services differed from their perceiptions of the the quality of the actual services they received in terms of services tangibiles.

4.4 Reliability Service Dimension

4.4.1 The respondent's expectations and perceptions on service reliability

This sub-section covers NHIS subscribers' expected and perceived service on reliability items comprising: Fulfillment of service promise, interest in solving problems, getting things right, keeping accurate records and providing service feedback.

Firstly, the hospital's ability to deliver service as promise is one the items of measuring reliability service dimension. Table 4.9 illustrates the NHIS subscribers' expectations and perceptions on the hospital's ability to fulfil service promise. The results showed that a large number of the NHIS subscribers' representing 96% completely agreed to the statement that they expected the hospital to fulfill service promises made to the patients. In relation to the service received at the hospital 91% of the NHIS subscribers' completely agreed that the hospital kept service promises. This indicates that subscribers consider fulfilling service promise as important to secure quality care.

Table 4. 9 Service users' expectations and perceptions services on fulfilling service promise

Fulfilment of service promises	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	191	95.5%	183	91.5%
Moderately agree	6	3.0%	13	6.5%
Neither/Disagree	2	1.0%	3	1.5%
Moderately agree	1	0.5%	1	0.5%
Completely disagree	0	0.0%	0	0.0%
Total	200	100.0%	200	100.0%

Secondly, quality care is affected by failure of staff to resolve patients' problems during service delivery. The table 4.10 showed that about 68% of the NHIS subscribers' completely agreed that the hospital has the ability to resolve patients' problems, followed by 22% of the NHIS subscribers who moderately agreed to the statement. In relation to the services received, more than half of the NHIS subscribers' (55%) after accessing care, the NHIS subscribers' completely agreed that the hospital was able to resolve patient problems. This indicated that subscribers' were concerned about staff showing interest in resolving patients' problems.

Table 4. 10 Service users' expectations and perceptions on resolving patient's problems

Resolving patients problems	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	135	67.5%	110	55.0%
Moderately agree	43	21.5%	70	35.0%
Neither/Disagree	8	4.0%	8	4.0%
Moderately agree	6	3.0%	6	3.0%
Completely disagree	8	4.0%	6	3.0%
Total	200	100.0%	200	100.0%

Thirdly, the effectiveness of treatment to NHIS subscribers' depends on the ability of the service provider to deliver the right service to the patients for the first time of visit. The table 4.11 illustrates respondents rating of their expected and perceived service under this item. Majority of

the NHIS subscribers' (80%) agreed to the statement and 13% of the NHIS subscribers' moderately agreed instead of completely agreed. In terms of the actual service received, 88% of the NHIS subscribers' perceived the diagnosis and treatment offered to be very effective and above patient service expectations.This indicates that hospital is efficient in the provision of healthcare service.

Table 4. 11 Service user expected and' and perceived service on getting things right

	Expectation		Perception	
Getting things right	**Frequency**	**Percent**	**Frequency**	**Percent**
Completely agree	159	79.5%	176	88.0%
Moderately agree	26	13.0%	19	9.5%
Neither/Disagree	5	2.5%	0	0.0%
Moderately agree	3	1.5%	2	1.0%
Completely disagree	7	3.5%	3	1.5%
Total	200	100.0%	200	100.0%

In addition, continuity of healthcare service and treatment offered to the patients depends on accurate record keeping. Table 4.12 shows that a large number of the NHIS subscribers' (85%) completely agreed to the statement and 4% of the NHIS subscribers' could not decide, another 3% of the respondents completely disagreed to the statement. For what patients had observed in relations to record keeping, more than half representing (78%) of the NHIS subscribers' completely greed to the statement and 15% of the NHIS subscribers' moderately agreed to the statement and not completely agreed.

Table 4. 12 Service user expected' and perceived service on accurate records

Accurate record keeping	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	170	85.0%	155	77.5%
Moderately agree	16	8.0%	29	14.5%
Neither/Disagree	7	3.5%	6	3.0%
Moderately agree	2	1.0%	5	2.5%
Completely disagree	5	2.5%	5	2.5%
Total	200	100.0%	200	100.0%

Finally, table 4.13 illustrates the NHIS subscribers' expectations and perceptions of feedback provided by the hospital. In terms of perception, a huge majority (73%) of the NHIS subscribers' completely agreed to the statement. Other NHIS subscribers representing 11% moderately agreed to the statement and not completely agreed and 9% of the subscribers' could not decide on the statement. After reciving services from the hospital, a little over half (57%) of the NHIS subscribers' agreed that during the process feedback was provided. Again 34% of the respondents moderately agreed to the statement and not completely agreed to the statement and 13% of the NHIS subcribers' were not bordered on service feedback. This indicates mix feelings among the NHIS subscribers' when it comes to the actual service received.

Table 4. 13 Service user expected' and perceived service on service feedback

Feedback of service	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	146	73.0%	114	57.0%
Moderately agree	21	10.5%	34	17.0%
Neither/Disagree	11	5.5%	25	12.5%
Moderately agree	5	2.5%	14	7.0%
Completely disagree	17	8.5%	13	6.5%
Total	200	100.0%	200	100.0%

4.4.2. The respondents perceived quality gaps on service reliability

The results in table 4.14 showed that there are perceived quality gaps between subscribers expected and perceived service quality in relation to the reliability items.

Table 4. 14 comparing Expectation and preceptions of service reliability

Service Reliability (N=200)	Perception		Expectation		Service GAP	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean difference (MD)	P-value
Fulfill service promise	4.805	0.700	4.935	0.334	-0.130	0.0190
Interest in solving problems	4.360	0.924	4.455	0.996	-0.095	0.3050
Get things right	3.175	1.916	4.635	0.892	-1.460	0.0000
Accurate records	4.620	0.866	4.720	0.797	-0.100	0.2210
Provide service feedback	4.110	1.247	4.370	1.233	-0.260	0.0260

As shown on table 4.14, the highest expected service quality by the NHIS subscribers' in terms of reliability was the ability of the hospital to fulfill service promise (Mean= 4.935), followed by accurate records keeping (Mean= 4.720). However, the least expected item by the subscribers was interest in solving problems (Mean= 4.455). For the real service received at the hospital, the highest perceived item was measured on fulfill service promise (Mean= 4.805). The second highest service recorded by the subscribers was accurate records (Mean = 4.620), and the lowest service recorded by the respondents was get things right (Mean = 3.175).

By comparing the results of what NHIS subscribers' were expecting during the visit and what was actually received, the results showed negative service quality gaps on all the items. Since no positive quality gaps were recorded in any of the service items measured, it suggests that NHIS patients' were not satisfied as a result of low perception of the service. The greatest negative perceived quality gaps were recorded in terms of get things right (MD= -1.460; p=0.0000). The

second greatest negative perceived quality gap experienced by the subscribers under the item was fulfilling service promise (MD= -0.130; p= 0.0190). Also, providing the service feedback to patients (MD= 0.260; p=0.0260). As illustrated by the p-values, these service gaps were statistically significant. The least perceived quality gap was recorded on interest in solving problems (MD= -0.095; p=0.3050). The significant differences between NHIS subscribers' perceived quality gaps showed that subscribers's received more than what they were expecting from the service provider since their perception exceeded their expectations for the service.

4.5. Service responsiveness dimension

4.5.1 The respondent's expectations and perceptions on service responsiveness

This subsection presents the expectations and perceptions of subscribers on the following responsiveness items: willingness of staff to help, quick and prompt service, staff not too busy to respond, and the behavior of staff instills confidence.

Firstly, providing timely care is an important service expectation for sick people who seek healthcare at the hospital. The table 4.15 illustrates NHIS subscribers' expectations and perceptions on promptness of service provision at the hospital. More than half of the NHIS subscribers' (68%) completely agreed to the statement that they expected promptness of service delivery from the hospital. For the actual service received on this item, more than half (63%) of the NHIS subscribers' completely agreed to the statement.

Table 4. 15 Service user expectations and perceptions on prompt service provision

Quick prompt service	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	135	67.5%	126	63.0%
Moderately agree	40	20.0%	42	21.0%
Neither/Disagree	13	6.5%	18	9.0%
Moderately disagree	7	3.5%	9	4.5%
Completely disagree	5	2.5%	5	2.5%
Total	200	100.0%	200	100.0%

Secondly, the subscribers' were asked to score how they expect staff to offer assistance to the patients. The table 4.16 shows that less than half of the NHIS subscribers' 44% completely agreed to the statement. On the services received, more than half of the NHIS subscribers' (60%) completely agreed to the statement.

Table 4. 16 Service user expected' and perceived service on staff willingness to help patients

Willingness of staff to help	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	89	44.5%	120	60.0%
Moderately agree	65	32.5%	56	28.0%
Neither/Disagree	29	14.5%	17	8.5%
Moderately disagree	4	2.0%	1	0.5%
Completely disagree	13	6.5%	6	3.0%
Total	200	100.0%	200	100.0%

Thirdly, the wish of every sick person in accessing healthcare is to see that, providers are never too busy to respond to request. The table 4.17 shows that more than half of the subscribers (64%) completely agreed to the statement that the expected the hospital not to be too busy to respond to request. On NHIS subscribers' perception of service, more than half (67%) of the NHIS subscribers' completely agreed to the statement.

Table 4. 17 Service user expected' and perceived service on never too busy to respond to patient request

Never too busy to respond to request	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	128	64.0%	133	66.5%
Moderately agree	53	26.5%	54	27.0%
Neither/Disagree	10	5.0%	9	4.5%
Moderately disagree	3	1.5%	1	0.5%
Completely disagree	6	3.0%	3	1.5%
Total	200	100.0%	200	100.0%

Lastly, the staff behaviors in healthcare service, to a larger extent influence the quality of the healthcare service received by the patients. The table 4.18 shows the expectations and perceptions about the behavior of staff to instill confidence. More than half of theNHIS subscribers' 56% completely agreed that they expected that the baviour of the staff would still confidence in term. On the actual service received under the item, majority of the NHIS subscribers (62%) completely agreed to the statement.

Table 4. 18 Service user expected' and perceived service on staff behavior

Behavior of staff instill confidence	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	112	56.0%	124	62.0%
Moderately agree	68	34.0%	64	32.0%
Neither/Disagree	13	6.5%	9	4.5%
Moderately disagree	2	1.0%	0	0.0%
Completely disagree	5	2.5%	3	1.5%
Total	200	100.0%	200	100.0%

4.8 The respondents perceived quality gaps on service responsiveness

Table 4.19 presents the perceived quality gap between subscribers expected and perceived service on responsiveness. The result showed that, among the five items the highest service expectations was associated with staff not too busy to respond to patients (Mean= 4.470)

followed by staff willingness to help (Mean= 4.465), behavior instill confidence (4.530) and, the least expected item by the NHIS subscribers' was quick and prompt service (Mean= 4.065). In terms of perception of the actual service received, the highest perception existed on staff not too busy to respond (Mean=4.565) followed by behavior instill confidence (Mean= 4.530) and the least was staff willingness to help (Mean= 4.375).

By comparing the results of NHIS subscribers' expectations and perceptions, the results showed both (positive) and negative perceived quality gap on service responsiveness. The greatest (positive) perceived quality gaps was recorded on quick and prompt service (MD=0.350; p=0.005) which is significant. This was followed by behavior of staff instill confidence (MD= 0.130; p=0.1070). On the other hand, the only negative perceived quality gap was recorded on willingness to help (MD= -0.090, p=0.3427). The negative quality gap was not statically significant.

Table 4. 19 comparing user expected' and perceived quality gaps on service responsiveness

Service Responsiveness(N=200)	Perception		Expectation		Service GAP	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean difference (MD)	P-value
Staff willingness to help	4.375	0.995	4.465	0.945	-0.090	0.3427
Quick and prompt service	4.415	0.898	4.065	1.121	0.350	0.0005
Staff no too busy to respond	4.565	0.741	4.470	0.896	0.095	0.2423
Behavior instill confidence	4.530	0.722	4.400	0.857	0.130	0.1070

4.9 Service assurance dimension

4.9.1 The respondents' expectations and perceptions on service assurance

This subsection presents the results on expecations and perceptions on the assurance service dimensions: Safety of treatment, Courteous staff and knowledgeable staff and attention by staff.

Firstly, table 4.20 presents the results of assurance of service in terms of safety of treatment. More than half of the NHIS subscribers' (78%) completely agreed to the statement that they expected safe healthcare and 15% of the subscribers moderately agreed. In a sharp contrast, a huge majority 96 % of the NHIS subscribers' agreed to the statement that the service received was safe. It is clear subscribers expected safe healthcare, but there was consensus among the subscribers that safe healthcare service was actually received at the hospital.

Table 4. 20 Service user expected' and perceived service on safety of the treatment

	Expectation		Perception	
Safety of treatment	Frequency	Percent	Frequency	Percent
Completely agree	157	78.5%	192	96%
Moderately agree	31	15.5%	3	1.5%
Neither/Disagree	8	4.0%	4	2%
Moderately disagree	0	0.0%	1	0.5%
Completely disagree	4	2.0%	0	0.0%
Total	200	100.0%	200	100.0%

Secondly, good interpersonal relationship between NHIS subscribers' and healthcare staff constitute the bedrock for effective and quality healthcare service. The results on table 4.21 shows that more than half of the NHIS subscribers' (68%) completely agreed to the statement that they expected courteous staff to deliver the service. Regarding service received in relation to staff courtesy, more than half (51%) completely agreed, followed by 31% rather moderately

agreed to the statement and not completely agreed and (13%) of the subscribers could not decide on the statement. This indicates mix reactions from the respondents.

Table 4. 21 Service user expected' and perceived service on staff courtesy

Courteous staff	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	136	68.0%	103	51.5%
Moderately agree	40	20.0%	62	31.0%
Neither/Disagree	14	7.0%	27	13.5%
Moderately disagree	2	1.0%	4	2.0%
Completely disagree	8	4.0%	4	2.0%
Total	200	100.0%	200	100.0%

Furthermore, as illustrated in table 4.22, a greater proportion of the NHIS subscribers' (67%) completely agreed to the statement that they expected to meet knowledgeable staff, again 21% of the NHIS subscribers' moderately agreed to the statement and 7% of the subscribers could not decide. After accessing healthcare service 64% of the NHIS subscribers' completely agreed to the statement that the staff that delivered the services were knowledgeable and 17% moderately agreed to the statement and 13% of the NHIS subscribers' not bordered. Considering the ratings, the results showed that the hospital has not reach a stage where service users are completely impressed with service of this item. However, smaller proportions of theNHIS subscribers' 4% and 3% respectively have failed to completely agree to the statement.

Table 4. 22 Service user expected and perceived service on staff knowledge

Knowledgeable staff	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	134	67.0%	128	64.0%
Moderately agree	42	21.0%	35	17.5%
Neither/Disagree	14	7.0%	27	13.5%
Moderately disagree	2	1.0%	4	2.0%
Completely disagree	8	4.0%	6	3.0%
Total	200	100.0%	200	100.0%

Lastly, in the table 4.23, expectations and perceptions of the personal attention provided by the staff to the patients are presented. Prior to accessing health service 77% of the NHIS subscribers'

were completely expecting staff to provide personal attention and 17% of the respondents moderately agreed and 7% of the NHIS subscribers' could not decide. After receiving healthcare, 67% of the NHIS subscriners' said they received personal attention of staff and 21% of the NHIS subscribers moderately agreed and 8% could not decide. This implies, a high general expectation which seems to be higher than the actual service received, because personal attention by staff constitutes an important means for the subscribers to determine quality service.

Table 4. 23 Service user expected' and perceived service on attention by staff

	Expectation		Perception	
Attention by the staff	Frequency	Percent	Frequency	Percent
Completely agree	154	77.0%	134	67.0%
Moderately agree	35	17.5%	43	21.5%
Neither/Disagree	8	4.0%	17	8.5%
Moderately disagree	2	1.0%	1	0.5%
Completely disagree	1	0.5%	5	2.5%
Total	200	100.0%	200	100.0%

4.10. The respondents perceived and expected quality gaps on service assurance

The table 4.24 presents the perceived quality gaps between NHIS subscribers' expected and perceived service on assurance of the service. The result showed that, the highest expected service at the hospital agreed by the NHIS subscribers' was personal attentions by healthcare provider (Mean=4.695), the second greatest expectation was safety of treatment (Mean= 4.685)) and the least was courteous staff (Mean= 4.110). For the actual service received, the highest perceived service quality was was personal attention of provider (Mean= 4.110), followed by knowledgeable staff (Mean= 4.355), and the least perceived service by the subscribers was courteous staff (Mean= 4.280).

By comparing the results of the NHIS subscribers' prior expectations of the service and what they received. The results showed (positive) perceived quality gap for some of the items. The

greatest (positive) quality gap existed on courteous staff (MD=0.170; p=0.15710), which means service expectation was higher than service perception but this difference was statistically insignificant. The rest of the items showed negative perceived quality gaps. The highest negative gaps was recorded on safety of treatment (MD=-0.390; p=00001), next was personal attention (MD= -0.195: p=0.01095). The significance levels recorded for these gaps implies that in terms of service assurance patients were expecting more than what they received at the hospital. Subscriberst's expectations for service exceeded the actual service received creating expectation quality gap and the subscribers completely agreed that expectations for service was not met.

Table 4. 24 Comparing user expected' and perceived quality gaps on service assurance

Service Assurance (N= 200)	**Perception**		**Expectation**		**Service GAP**	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean difference (MD)	P-value
Safety of treatment	4.295	0.939	4.685	0.734	-0.390	0.00001
Courteous staff	4.280	0.914	4.110	1.337	0.170	0.15710
Knowledgeable staff	4.355	1.022	4.490	1.070	-0.135	0.17711
Personal healthcare	4.500	0.868	4.695	0.643	-0.195	0.01095

4.11 Service empathy dimension

4.11.1 The respondents' expectations and perceptions on service empathy

The results of the empathy service dimensions are presented in terms of staff offering individualised attention, convenient operating hours, staff gives personal attention, the hospital has best interest of patients, and the hospital understand your specific needs.

Firstly, the empathy of the healthcare service, concerns the capacity of the healthcare staff to experience another's feelings from patients seeking health, and also welcomes the patients'

weakness in delivering healthcare care. Table 4.25 showed that large majority of the NHIS subscribers' 73% completely agreed to the statement that they expected the staff to give them individualized attention and 21% of NHIS subscribers' moderately agreed to the statement. After going through the service at the Tamale Central Hospital, 75% of the NHIS subscribers' completely agreed to the statement that individualized attention were catered for during service delivery. Additionally, 21% of the subscribers moderately agreed to the statement. Even though expectations for service were very high, the actual service received by the NHIS subscribers' exceeded expectations for the service. This indicates that personal attention was important to the NHIS subscribers' as they agreed that it was adequately delivered by the hospital.

Table 4. 25 Service user expected' and perceived service on individualized attention

	Expectation		Perception	
Individualised attention	Frequency	Percent	Frequency	Percent
Completely agree	147	73.5%	151	75.5%
Moderately agree	41	20.5%	42	21.0%
Neither/Disagree	8	4.0%	7	3.5%
Moderately disagree	1	0.5%	0	0.0%
Completely disagree	3	1.5%	0	0.0%
Total	200	100.0%	200	100.0%

Secondly, friendly working hours of the healthcare provider makes health service accessible to all at any time services are required. As indicated in table 4.26, prior to the service 79% of the NHIS subscribers' completely agreed to the existence of convenient operating hours and 16% of the subscribers moderately agreed to the statement and only 4% moderately disagreed. After receiving the service about 81% of the NHIS subscribers' agreed that the operating hours were convenient, and only 15% of the NHIS subscribers' moderately agreed to the statement. Therefore one should understand that convenient operating hours was an important standard protocol of healthcare

Table 4. 26 Service user expected and perceived service on operating hours

Operating hours convenient	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	158	79.0%	163	81.5%
Moderately agree	32	16.0%	31	15.5%
Neither/Disagree	0	0.0%	4	2.0%
Moderately disagree	7	3.5%	2	1.0%
Completely disagree	3	1.5%	0	0.0%
Total	200	100.0%	200	100.0%

In addition, the personal healthcare needs of patient are important, and it is expected that health service providers will deliver personal centered care. The table 4.27 showes that prior to service 82% of the NHIS subscribers' completely agreed that personal attention was provided at the facility and 9% of the NHIS subscribers' moderately agreed to the statement, again 5% of the subscribers were not bordered. After receiving healthcare service at the hospital, 72% of the subscribers completely agreed to the statement followed by 40% of subscribers who also moderately agreed to the statement and only 8% of the NHIS subscribers' could not decide. The service received by patients could not match the expectations NHIS subscribers' developed on this item.

Table 4. 27 Service user expected and perceived service on personal attention to patients

Personal attention	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	165	82.5%	144	72.0%
Moderately agree	18	9.0%	40	20.0%
Neither/Disagree	10	5.0%	16	8.0%
Moderately disagree	3	1.5%	0	0.0%
Completely disagree	4	2.0%	0	0.0%
Total	200	100.0%	200	100.0%

Furthermore, the belief that healthcare providers in delivering service should consider subscribers' interest actually affects and influence the quality of service to subscribers. The table

4.28 shows that 84% of the NHIS subscribers' indicates that they completely agreed that they expected the hospital to have their interest at heart, followed by 14% of the NHIS subscribers' who moderately agreed to the statement. After accessing healthcare service at the hospital, more than half 76% of the subscribers completely agreed to the statement also followed by 17% of the NHIS subscribers' who moderately agreed to the statement. A suggestion that vast majority of the subscribers' recognized the importance of service providers dedicating their heart to the patients. It is clear that subscribers' are conversant with this service dimension and are reasonably pleased with the item.

Table 4. 28 Service user expected and perceived service on haven patient interest at heart

Interest at heart	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	168	84.0%	152	76.0%
Moderately agree	28	14.0%	34	17.0%
Neither/Disagree	2	1.0%	8	4.0%
Moderately disagree	2	1.0%	4	2.0%
Completely disagree	0	0.0%	2	1.0%
Total	200	100.0%	200	100.0%

Finally, managers should strive towards addressing the specific needs of patients as a strategy to improve the quality of service. As illustrated in table 4.29, a large number of the NHIS subscribers' (73%) agreed to this as expectation for service, followed by 13% of the subscribers' who moderately agreed to the statement and not completely agreed and 8% of the NHIS subscribers' could not decide. After they went through the service, 76% of the NHIS subscribers' agreed that the hospital has been addressing patients' specific healthcare needs, while 16% of the subscribers moderately agreed and not completely agreed to the statement and 7% of the subscribers' could not decide on the statement. The results indicated that they simply agreed hospital staff are very approachable in addressing specific needs of NHIS subscribers'.

Table 4. 29 Service user expected' and perceived service on specific needs of patients

Patients specific needs	Expectation		Perception	
	Frequency	Percent	Frequency	Percent
Completely agree	146	73.0%	152	76.0%
Moderately agree	26	13.0%	31	15.5%
Neither/Disagree	16	8.0%	13	6.5%
Moderately disagree	3	1.5%	2	1.0%
Completely disagree	9	4.5%	2	1.0%
Total	200	100.0%	200	100.0%

4.12 The respondents perceived quality gaps on empathy service dimension.

The table 4.30 illustrates NHIS subscribers' perceived quality gaps on expected and perceived under service empathy. The result showed that, the highest expected service by the subscriber's was the hospital haven interest of patients (Mean= 4.810), followed by attention giving by staff (Mean= 4.685) and the least expected service according to the subscribers's was hospital understand specific needs of patients (Mean= 4.485). For the perception of quality of service received. The highest perceived quality of service was measured on convenient operating hours of the hospital (Mean= 4.775), followed by individual attention given by staff (Mean= 4.720) and the least perceived item was hospital understands subscribers needs (Mean= 4.645).

By comparing the NHIS subscribers'expected and perceived services, the results showed (positive) and (negative) quality gaps to the subscribers'. The greatest positive perceived quality gap existed on hospital understand subscribers' specific needs (MD= 0.160; p=0.07). The p-value indicates that the quality gap was statistically significant. The next greatest perceived quality gap was also measured on convenient operating hours of the hospital (MD= 0.100; p=0.134). This was also statistical significant. The (positive) perceived significant quality gaps imply that there were significant differences between the quality gaps which means perception of quality exceeded the expected service, hence satisfaction of the healthcare received. The

negative perceived quality gap to NHIS subscribers was recorded on patient's best interest (MD= -0.160; p= 0.012). This negative gap was also statistically significant. This implies that NHIS subscribers' expectations of service exceeded the perception of the quality received. The next greatest (negative) perceived quality gap was recorded on convenient operating hours (MD=-0.045; p=0.543). This was, however, statistically insignificant. This implies that the perception of quality subscribers were receiving was not different from what they expected from the hospital.

Table 4. 30 Comparing user expected and perceived quality gaps on service empathy

Service Empathy (N=200)	**Perception**		**Expectation**		**Service GAP**	
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**	**Mean difference (MD)**	**P-value**
Individual attention	4.720	0.522	4.640	0.723	0.080	0.18
Convenient operating hours	4.775	0.525	4.675	0.783	0.100	0.134
Staff gives personal attention	4.640	0.626	4.685	0.806	-0.045	0.543
Hospital has best interest of patients	4.650	0.742	4.810	0.485	-0.160	0.012
Hospital understand your specific needs	4.645	0.736	4.485	1.022	0.160	0.007

CHAPTER FIVE

RESULTS/FINDINGS

5.1 Introduction

The chapter presents results/ findings in relation to the study, the conceptual framework of the study, and results of other findings in literature. The discussion of the results and findings are presented in order of the objectives of the study.

5.2 The patients' expectations for healthcare Service

Service expectations serve as standards or reference points against which performance of a service is judged. One of the objectives was to determine NHIS subscribers' healthcare expectations prior to the visit of the hospital. The meeting of subscribers' expectation of service constitutes genuine service grounds for the consumers to judge the quality of the service (Turkson, 2009). The study revealed that the process of quality service delivery would meet clients' expectations of service if the administrators of the hospital could consider the tangible aspect of the healthcare service. The tangible aspect of service examines attractiveness of medical equipment, physical environment and staff appearance (Parasunama *et al*, 1988). Thus, respondent's expressed high level of expectations prior to the service, of seeing hospital using up-to date modern equipment for treating patients that could have made the process of assessing quality care in the hospital more efficient and cost-effective. The study findings are consistent with that of previous studies (Ramez,2012; Jabnoun *et al*, 2003; Youssef, 1996) in which they found that respondent's expectations for quality of healthcare service was influenced by the service tangibles. However, the study results is inconsistent with the findings of other studies (Essiam, 2013; Mohammedi *et al*, 2012) which found that subscribers' expectations for the

quality of healthcare service prior to the hospital was affected by responsiveness of the healthcare service instead of the service tangibles. The differences and variations of the findings could be attributed to respondents' haven different construct and versions of quality service expectations which could be influenced by differential forces and variables.

The study findings have far reaching implications for the provision of healthcare service to NHIS patients' and management of healthcare services in the metropolis. Studies have showed that malfunctioning of medical devices can result to ineffective diagnosis (Cooper *et al,* 1978). Again, using obsolete and less attractive equipment affects diagnosis and treatment which negatively affect the quality of the service (Institute of Medicine, 2004). The United States Food and Drug Administration (FDA) (2000) and device manufacturers continue to work to improve device safety, but since no device is completely safe in every environment. Deploying efficient medical equipment is an asset for economic growth and development (Lukas *et al,* 2004; Cunningham *et al,* 1995; Shesser *et al,* 1991).

The lacked of attractive and sound working equipment in healthcare provision makes it cumbersome for hospital to conduct an independent diagnosis on NHIS subscribers'. Encyclopedia Britannica (2002) reiterated the need for adequate and efficient equipment based on the premise that, the hospital concentrate on delivering quality service to the patients. It is also, obvious that from the results good quality healthcare service was received by the subscriber's on tangibility dimension of service. This re-position the providers to provide critical healthcare to the patients (Atinga *et al,* 2011). Other researchers argued that consumers might actually recognize tangible aspect of service as more important than the actual service consumed (Santos, 2002; Dispensa, 1997).

The tangibility of service is the most critical factor and unique character of service because it affects both service users and management assessment of the service (Nketia *et al,* 2009 McDougall *et al,* 1990). Similarly by making healthcare services received by the prospective NHIS subscribers' more tangible, the patient would be able to make service assessment and evaluation before purchase (Rushton *et al,* 1989). Modern equipment act as predicator for effective healthcare delivery and contributes to enhance patients' life expectancy.

The healthcare environment must look very attractive to NHIS subscribers' in order to meet their expectations for service. (Bitner, 1992) states that the physical factors influence beliefs about the environment and also appear to affect other, seemingly unrelated, service attributes. (Sureshchandar *et al,* 2002) proposed that physical factors influence service quality and expectations of the consumers. Environmental psychology (Baum et al, 1978) suggested that customer reactions to service tangible generates excitement in service settings; and determining customers' patronage intentions and willingness to recommend. Healthcare service providers be conscious about these development and adopt appropriate environmental design to meet service expectations of patients (John, 1999).

5.3 The patients' perceptions of the healthcare services

One of the study objectives was to examine NHIS subscribers' perceptions of the quality of healthcare service received at the hospital after submitting themselves to the service. The study result showed that the greatest perceived service by the NHIS subscribers after going through the service agreed that safety of the treatment to the subscribers was good. Safety refers to the provider's capacity to maintain a comfortable and safe treatment environment for patients, potential consumers, and employees in the hospital.

The second greatest perceived service by the NHIS subscribers' was service tangibles which appear to be the highest expectation for subscribers' in this study. After the service, the NHIS subscribers' expresses pleasure and agreed that expectations for service on assurance qulity dimension was exceeded by what the patient perceived to be high perceived actual service received at the hospital.

The findings arrived that, the NHIS subscriber's perceived safety of the treatment offered to patients to be very high in the assurance quality dimension . This indicated that NHIS patients are happy of getting safe quality healthcare service at the hospital. The findings was similar to other studies conducted by (Tarım *et al*, 2003; Dontihene, 1994) which found that respondent's seeking medical service highly perceived the assurance of service to be sufficient in addressing their healthcare needs. Several other studies also reported similar observation in different populations (Dursun *et al*, 2004; Jabnoun *et al*, 2003; Aldana *et al*, 2001). Those findings also showed high perception rates among the subscribers' on treatment safety offered to patients.

The findings on perceptions of the NHIS subscribers' was however, different from other findings from other studies (Van *et al*, 2004; Ceelik *et al*, 2012; Al-Hawary, 2011) which showed that respondents' perceived high level of service quality on service tangibles. The differences in the study results could be attributed to respondents' consciousness of the service and the meaning of their service experiences. What they experienced as a reality of service was ultimately the construct of events and meaning of those events will be different from another group.

The high perceived level of safety treatment offered to the NHIS subscriberss' seems to be influencing and controlling the demand for medical services at the hospital. The study result means a lot for healthcare management. It is clear from the respondents' that the ability of the

hospital to deliver safe quality proves that the facility has the requisite professional, expertise and the capacity to deliver service that meet professional specifications and normative standards. The study results imply that healthcare service quality be supported by regulations to promote quality delivery. There is considerable evidence that shows that regulations improve the process of safe care provided by healthcare (Simons et *al*, 2002; Bukonda *et al*, 2003). Therefore, safety of treatment as perceived by the respondents' was assumed to be an argument of the individual utility function (Li *et al*, 1996). According to the Institute of Medicine (2011) safe healthcare prevents the risk of injuries and infections, and harmful side effects and dangers to clients.

In similar studies, (Osman *et al*, 2000) noted that safety of the medical treatment strengthened patients' confidence in the health delivery system and deepen patients confidence to use hospital medical service. Safety of healthcare service thus contribute to high recovery rate and leads to quality service and satisfaction (Kantsperger *et al*, 2010; Yeh *et al*, 2009). The confidence of patient could be enhancing through the National Quality Strategy which is designed to be an adaptable and evolving guide for healthcare service WHO, (2013). It is a broad roadmap that will require the ongoing development of specific goals, measures, benchmarks, and initiatives and core set of principles through a continued transparent collaborative process with all stakeholders to support the role of policy and strategy development (Salar, 2012;WHO, 2012). This domain is critical to quality improvement, because individuals and communities play so many roles within health systems. Either directly or indirectly, they will be working in partnership with health workers to manage their own care (Klazinga, 2000). Care managers can find ways to make quality health care safer. Safety healthcare services will not only meet technical standards of quality, but they also satisfy clients'. Finding ways to enhance client satisfaction of safety healthcare increase provider skills and expertise, and overcome barriers and ensuring that

clients will continue to seek services to meet their health needs. WHO, (2012) the healthcare providers as part of enhancing the quality of health service encourage organizations' to work as professional teams to promote patient welfare. The quality of treatment outcomes are not, delivered by -service providers alone. The community and service users are co-producers of effective healthcare. They have critical roles and responsibilities in identifying their own needs and preferences, and in managing their own health with appropriate support from health-service providers. By incorporating the perspectives of both clients and providers into efforts to improve safe quality healthcare, policymakers and program managers can develop a deeper understanding of the needs and constraints faced by patients (Commonwealth of Australia, 2009; Department of Health, 1999;Department of Health, 2000; World Health Organization, 2012). Again, safety of treatment requires healthcare providers to have well equipped experience healthcare staff (West, 2004). According to WHO, (2012) medical practice has traditionally focused on the individual physician as solely responsible for a patients care. However, patients today are rarely looked after by just one health professional. Patient safety, in the context of a complex medical system, recognizes that effective teamwork is essential for minimizing adverse events caused by miscommunication with others caring for the patient and misunderstandings of their roles and responsibilities (Mickan, 2005; Risser, 1999). Also, if safety of service is a priority to an institution and staff, then physicians must develop the spirit of sharing ideas on continuous bases (Baker *et al,* 2005). Also, to ensure quality healthcare monitoring and supervision of the service delivery process is key (Greenhalgh, 2006). The monitoring and clinical supervision has patient-safety and quality of care as its primary purposes (Kilminster *et al,* 2007). After training is completed, doctors may practice for the rest of their career, clinical supervision is sufficiently flexible to be adapted to the needs of service users since its functions

remain focused on patient safety, good clinical care. Clinical monitoring provides ways to explore the complexity of clinical judgments and encourages doctors to question one another's authority in a supportive culture (Owen et *al*, 2012). For this present study high perceived safe healthcare to the respondents can mean health institutions with the mandate correctly carry out investigations and contribute greatly towards patients' safety. Remember that, safety of care is an important quality indicator to the NHIS subscribers'. Especially, poor and vulnerable patients, who lack the resources to seek alternative healthcare to remedy healthcare risk (NHIA, 2014).

5.4 The patients' expectations and perceptions on quality gaps

(Gronroos, 1984; Parasunama *et al*, 1985) have defined service quality as the differences between perception (customers' judgment of the service they received) and expectations (what they feel the service should be). The key objective of this study was to identify service quality gaps both satisfactory and unsatisfactory to the NHIS sbscribers' who seek and access healthcare at the hospital. The result of the study shows that, the patients experienced quality of healthcare service at the hospital on some service dimensions. The key findings in relation to quality gaps to the NHIS subscribers' are discussed in line with following service dimensions, focusing predominantly on those gaps that were statistically significant.

The reliability dimension of service had three main quality gaps to NHIS subscribers' which were statistically significant. These were getting treatment right, the ability of the hospital to fulfills service promise and providing service feedback to the patients. According to (WHO, 2010) getting treatment right is better for patients and also less expensive. In terms of policy implications, there must be clinical guidelines and evidence based care to determine medical condition and treatment. Again, fulfilling the service promise to the patients had showed

significant differences between service expectations and perception of service which indicated that expectations of the service was not met by the hospital and this quality gap was affecting the delivery of quality care to the NHIS subscribers'. The NHIS subscribers' completely agreed that fulfilling service was critical in the demand for healthcare services. Management must work to meet NHIS patients' expected service which enhances better service experience and satisfaction. Also, there were significant differences between the quality gaps in relation to service feedback to patient, which showed that expectations for the service were higher than the perceptions of the quality of service received. Good quality care requires healthcare providers to deepen and enhance communication between patients and staff especially those waiting for healthcare services. Safeguarding the rights to timely health care are important health service charters (Owens *et al,* 1996). This ensure that patients have choices which make it easier for them to have their needs met (Tokunaga *et al*, 2000**).** The healthcare service charter affirmed that NHIS patients' need to know where they are and what they are waiting for in the hospital and how long they may be expecting to wait to receive the services (Institute of Medicine, 2001).

Another dimension of service that showed significant differences in terms of the quality gaps relates to service responsiveness, that is quick and prompt service and the behavior of staff instill confidence in NHIS patients' in both quality gaps the perception of the quality of the service received exceeded the expectations of the respondents' which suggested that subscribers' are more satisfied in areas of service received at the hospital. (Bitner *et al*, 1994) observed that customers' satisfactions are means through which the service users would convey pleasurable information about the service to others with a view to convincing others to patronize.

Quick and prompt care was identified as one of the six priority areas for improvement in the healthcare system (Institute of Medicine, 2001). Quick and responsive care contributed to assist

patients to improve their confidence and self-esteem in treatment process (Geounuppakul *et al*, 2007).

Furthermore, the assurance dimension of service had also witnessed significant differences in relation to respondent's quality gaps. The significant differences were between safety of treatment and providing personal healthcare needs of the patients. In these service assurance items the expectations for the service exceeds the perception of the service received. This confirmed that most of the respondents were not satisfied with the quality of care received. Assurance is especially critical to the patients especially where trust and confidence in the service facilitates healing (Branssington *et al,* 2000). A right to safety treatment and high quality care is addressed by, ensuring NHIS subscribers' or consumers understand the treatment offered, and by extension participating in existing patient safety systems to make healthcare safer. This will automatically limit the quality gaps the NHIS subscribers' have experienced on the assurance service dimension, and impact on improving high service quality which is crucial for healthcare organizations (Offei, 2004; Baltussen *et al*, 2002). In addition, on same service assurance there was a significant difference between the quality gaps on personal healthcare needs of the respondents, which means expectations where higher than the perceptions of service received. This implies personalized healthcare service received by the NHIS patients' could affect the overall quality of the healthcare received (Rose *et al,* 2004;Taner *et al,* 2006), and if it is properly managed could automatically increase and boost patients' perceptions and satisfaction of the quality of healthcare service received.

Failures of the service provider to act according to respondents' expectations present a strong feeling of anger, disappointment in a clinical setting which undermines quality service.

Therefore, service providers must start recognizing and understanding that' personal healthcare needs of NHIS subscribers' impact positively on their health and quality service delivery

Moreover, the empathy dimension of service also recorded significant quality gaps. The two main service areas with the quality gaps includes; hospital has your best interest at heart and the hospital understand patients specific health needs which showed that respondents were expecting more than what they received in relation to their specific health needs. There was a quality shortfall in addressing NHIS subscribers' feeling the hospital has their best interest at heart. This indicated that patients were not satisfied with quality of service received. The tendency to switch to different service providers could be high since the NHIS subscribers' viewed that the hospital did not have their interest at heart.

(Shama *et al,* 2004) emphasized that understanding the specific healthcare needs and having patient's interest at heart are key building blocks of quality healthcare service to the patients. For this reason, patients are expecting better and caring treatment from the hospital. The implications for the healthcare service providers are that there is the need to understand patients' health needs and to act on that understanding in a clinical context. But in relation to understanding the specific health needs of the NHIS subscribers', there were significant differences between thequality gaps which showed that perceptions of the service received exceeded the expectations for the service indicating that the respondents were satisfied with quality of the healthcare service received.

This has shown that, the empathy of the service delivered to patients plays dual role both as cognitive and affectionate gesture, which engender effective communication between service providers and patients and promote service delivery (Beaujean, 2006). This affection builds up shared feelings and accurate understanding and acceptance of the clients' feeling. If perceived

empathy is shown to a patient as shown in these findings, increases service providers' empathy and would be a potential means through which to alleviate negative impact of perceived service delivery gaps and improve quality and service satisfaction (Bharadwaj, 1993).

Patients who feel the hospital is not empathetic to their needs, may take their healthcare elsewhere, and healthcare providers missing out on the opportunity to better connect with their patients and earn more of their business. As the study highlights, when health-care providers take the initiative to ensure that one of their most important touch point of physician interactions with patient takes empathy into account, they can make a stronger impression and receive higher overall scores from patients (Reichheld, 1990).

To conclude quality gaps in healthcare service affects hospitals in a variety of ways, from profitability to deteriorating patient's health status and lowering of public perception of service. In addition, quality affects the overall operating costs and performance of a healthcare system.

CHAPTER SIX

SUMMARY OF KEY FINDINGS, CONNCLUSION AND RECOMMENDATIONS

6.1 Summary of key findings

Based on the study results, the high expected quality of the service by NHIS subscribers' at the hospital were recorded on the following quality dimensions service tangibles and service reliability. The NHIS subscribers' expected the hospital to provide healthcre service in a very attractive environment. The NHIS subscribers' also wanted the hospital to fulfill service promise made to the patients'. The ability of the hospital to meet these quality expectations by the patient improves service satisfaction at the hospital

In assessing respondent's perceptions of the quality of service received at the hospital. The respondents completely agreed that they perceived treatments offered to clients tobe safe. They also agreed and perceived that the environment in which the healthcare services were received was very attractive. Therefore, attractive service environment was key in influencing 'the perception of the quality of healthcare service received at the Tamale Central Hospital.

However, in assessing the quality gaps to the subscribers' of the quality of healthcare service received, the results found both positive and negative quality gaps to NHIS patients at the hospital. Arguably, the negative service gaps were in the majority. The quality gaps were observed in some items such as reliability, responsiveness, assurance and empathy service dimensions and the gaps showed significant differences. However, it was only tangibility dimension of service, where the quality gaps were not statistically significant. This showed that both expected and perceived service differences were not much.

The quality gaps in some of service items showed that patients are not satisfied with the quality of healthcare service received in relation to some service items. Therefore, patient's expectations of quality service received, exceeded their perceptions of the quality of service received.

6.2. Conclusions

This study sought to assess the gap between national health insurance clients' expectations and their perceptions of the quality of healthcare service received. Based on the findings of the study, the following conclusions have been drawn. The most significant service quality dimensions to the NHIS subscribers' in terms of service quality expectations was tangibility and reliability. In relation to service perceptions, the most important quality of service dimensions was assurance and tangibility. However, for quality gaps in relation to service received they were also affected by quality service dimensions such as tangibles, empathy, responsiveness and assurance. These quality gaps could affect and impact negatively on the healthcare service received by the respondent's at the hospital. Although, the respondents completely agreed that some of quality dimensions of service at the hospital were generally good, management can put in place measures to address the quality gaps from the various service dimensions in order make quality service excellent to the patient's.

6.3 Recommendations

The study results propose the following recommendations.

- Directors of healthcare services and healthcare practitioners should at all time adopt practices that conform to service standard and best practices to enhance safety of the treatment as the assurance dimension recorded quality gaps.

- The resultss indicated that reliability quality dimension recorded negative quality gaps steps be taken to ensure that the clients are provided with service feedbacks to enhance the perception of the quality of service received by NHIS subscribers'.
- Another quality gaps was recorded on getting treatment right for the first time, and considering the importance of this quality gap preliminary investigations be done by healthcare providers to ensure that NHIS patients' receives the right healthcare during visit.
- Also, service promptness recorded negative quality gaps. The hospital as a matter of agency improves and quicken the pace of healthcare delivery to the NHIS patients' to eliminate service delays associated with healthcare service provision.
- The significance of the empathy dimesion of service showed that, the hospital must work to improve the quality gaps by ensuring that healthcare services are tailored and delivers to meet the quest and personal healthcare needs of the NHIS subscribers'.
- The findings also revealed that, patients experience quality gaps in relation to staff showing little commitment they have patients interest and welfare at heart, management and their staff should have the human feeling to relate and empathize with the NHIS subscribers'.
- Also, the results had shown that health professionals must be meticulous in their quest to addressing the health needs of the NHIS subscribers'.
- Health administrators should ensure that, all other service quality dimension be given adequate priority. Attempts must be made to perpetually identify quality gaps and uses the service system for corrective actions.

- The study recommended updating the knowledge and skills, through periodic refresher courses for all health workers and other stakeholders to improve service delivery to the NHIS clients'.
- The findings admonished management to draw up policies based on responsiveness, reliability empathy and assurance dimensions of service to improve, the quality of healthcare service.
- The future research can examine quality gaps between patients' expected and perceived quality of healthcare service should compare public and private hospitals using larger sample size.

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APPENDIX A: QUESTIONNAIRE

UNIVERSITY FOR DEVELOPMENT STUDIES

ASSESING THE GAP BETWEEN THE NATIONAL INSURANCE CLIENTS EXPECTATIONS AND PERCEPTIONS OF THE QUALITY OF HEALTHCARE SERVICE RECEIVED AT THE TAMALE CENTRAL HOSPITAL

Dear Participants,

I am MSC Community Health and Development student of the University for Development Studies and conducting a survey on the quality of healthcare service received at the Tamale Central Hospital. Your responses will be treated confidentially and used only for academic purpose. Your participation in the study will be greatly appreciated. The quality of the healthcare service deals with your expectations and perceptions of healthcare service received. Please show the extent to which you think you are receiving the quality of healthcare service in the hospital.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

(1). How old are you?.....

(2) Sex Male [ ] Female [ ]

(3) Marital status? Married [ ] Widowed [ ] Single [ ] Divorced [ ] Other [ ]

(4). Educational level? Basic [ ] secondary [ ] Tertiary [ ] No formal education

(5) Employment status? Public servant ( ) [ ] Self employed [ ] Student [ ] Unemployed [ ]

Statements of the quality of healthcare service (Expectations)

Directions: The following set of statements relate to your expectations of the quality healthcare service you want to receive at Tamale Central Hospital. For each statement, your expectations on the quality of healthcare received at Tamale Central Hospital, on the features of quality dimensions described below. if you choose 1 or 2 means strongly agree and selecting 4 and 5 means you strongly disagree. Selecting 3 shows neutral response, there is no right or wrong answers we are only interested in your expectations of the quality healthcare service at the hospital.

Tangibility	Strongly disagree	Moderately disagree	Neither agree or disagree	Moderately agree	Strongly agree
Expected to have up-to-date equipment					
physical facilities visually appealing					
Employees well dressed and neat in appearance					
Patients educating materials are appealing?					
The hospital is always clean					
Equipment uses in treatment are clean					
Reliability					
Promises are fulfilled by the hospital					
Show interest in solving patients problems					
Get things right for the first time					
Keep records accurately					
Tell patients exactly when services be delivered					
Responsive					
Expected quick and prompt service					
Expected staff to be willing to help patients					
Expected staff Never too busy to respond to request					
Want behavior of staff to instill confidence					
Assurance					
You feel safe dealing with the hospital					
Nurses consistently courteous to you					
Staff have the knowledge to answer questions					
Staff gives you attention					

Empathy					
Staff gives individualized attention					
Operating hours of the hospital convenient					
Staff gives you personal attention					
Has the hospital has your best interest at heart					
Does the hospital understand your specific needs					

Statements of the quality of healthcare service (Perceptions)

Directions: The following set of statement relate to your feelings and perceptions of the quality of the healthcare service you have received at Tamale Central Hospital. For each statement show the extent to which you perceived that Tamale Central Hospital has the quality dimensions described below. if you choose 1 and 2 means strongly agree and selecting 4 and 5 means you strongly disagree. Selecting 3 shows neutral response. There is no right or wrong answers we are only interested in your expectations of the quality healthcare service at the hospital.

There is no right or wrong answers we are only interested of your perception about the hospital.

Tangibility	Strongly disagree	Moderately disagree	Neither agree or disagree	Moderately agree	Strongly agree
The hospital has up-to-date equipment					
The physical facilities are visually appealing					
The employees are well dressed and neat in appearance					
Patients educating materials are appealing					
The hospital is always clean					
Equipment uses in treatment are clean					
Reliability					
Promises are fulfilled by the hospital					
The staff show interest in solving problems					
Hospital get things right for the first time					
Hospital keep records accurately					
Tell patients exactly when services be delivered					
Responsive					
Provide quick and prompt service					
Staff always willing to help patients					
Staff never too busy to respond to request					
Behavior of staff instill confidence					
Assurance					
You feel safe dealing with the hospital					
Nurses consistently courteous to you					
Staff have the knowledge to answer questions					
Staff gives you attention					
Empathy					
Staff gives you individualized attention					
Operating hours of the hospital convenient					
Staff gives you personal attention					
Has the hospital has your best interest at heart					
Does the hospital understand your specific needs					

Thank You